Wilson Dam was not needed by the Power Company for capacity and the nature of the agreement with the United States, containing as it did a Thirty Day Termination Clause, precluded the possibility of relying on it either for capacity or emergency use. To meet the rapidly growing demand for power it was necessary to constantly add new generating plants instead of absorbing the capacity of Wilson Dam. The rate of two mills per KWH was arrived at by agreement with the Chief of Engineers after a thorough and complete investigation of the cost of producing steam power and after complete operating records of the Power Company's steam plants were furnished for the purpose. The rate of two mills represented the actual increment cost for labor, supplies and fuel to produce this energy at the switchboard and meant neither profit nor loss to the Power Company, or if anything it meant a loss due to the longer transmission from Wilson Dam to load centers and consequent larger line losses. During this period the Power Company used the maximum power possible from Wilson Dam in substitution of steam.

"July 16th, 1928, the Secretary of War wrote the Alabama Power Company asking that a proposal be made which would insure more revenue to the Government. As a result of this request an agreement was prepared by the Chief of Engineers and Judge Advocate General acting for the Government and representatives of the Power Company providing for much larger annual payments. I quote from the letter of September 4th, 1928 by the Power Company to the Secretary of War as follows:

> "'Following the suggestion contained in your letter of July 21st, requesting that we confer with the Chief of Engineers and the Judge Advocate General with a view to a new arrangement desired by the United

States which would insure a larger income from the sale of Wilson Dam power than appears possible under the present plan, representatives of several southern power companies have conferred with these officers in an effort to work out a new plan.

" 'The negotiations developed two difficulties that must be overcome in any plan that will insure the United States an income commensurate with the value of the commercially usable power at Wilson Dam. One is the necessity that funds will be available for operation for the period of the contract, and the other is assurance that at least eighteen months advance notice will be given if the contract is to be terminated or a substantial portion of the power is to be withdrawn. Otherwise the contract might be terminated at any time and thereby destroy the dependability of the plant as a source of power except on a day to day basis. This is the present condition which reduces its value to that of a dump power project.

" 'An agreement has been worked out, however, on the basis of a five year contract, subject to termination on eighteen months notice, for the sale of the entire power output to the Power Transmission Company. This contract contemplates public use of this amount of power, under public regulation, within several Southern States. The Power Transmission Company will be a non-profit company. Its stock is owned by Tennessee Electric Power Company, Georgia Power Company, Alabama Power Company and Mississippi Power Company.

" 'Surveys of future power demands in the territory served by these companies indicate that during the next five years new plants must be provided each year to meet the public need for all kinds of electric service. A minimum of eighteen months in the case of steam plants and about three years in the case of hydro plants is required to construct and bring into production new power plants. Steam and hydro plants

now under construction for operation beginning in 1929 and 1930 will in large measure provide sufficient capacity for increased demands in those years. If the contract submitted is approved and continues in force, it is the purpose of these companies to withhold bringing new plants into operation, other than those now under construction, until the companies will be able to absorb to the fullest economic advantage the commercially usable power output of Wilson Dam, both primary and secondary. This will enable the company to guarantee a return to the United States of at least $2,100,000 annually in addition to the minimum payments of $120,000 per year rental for the Sheffield steam plant, or a total guaranteed annual payment of $2,200,000. These payments can be made only on condition that the contract will not be terminated or substantial amounts of power withdrawn except upon eighteen months advance notice in order that the power companies may have time to provide other sources in substitution of Wilson Dam power.

"'Because of these economic reasons, readily recognized by anyone, it should be understood that if the company is to be able to continue to purchase the amount of power stated and at the rates expressed and make the guaranteed calendar year payments throughout the period of the contract, provision must be made for continuous operation until the end of 1933, or at least for periods after July 1, 1929, sufficiently long that the company may at all times be assured of eighteen months advance notice that the contract will be terminated or that substantial portions of the power will be withdrawn. Otherwise it can not justify the guaranteed payments of $1,600,000 for the calendar year 1930 and of $2,100,000 for each of the three subsequent calendar years, plus $120,000 annually for the right to use the Sheffield steam plant as an emergency auxiliary.'

"The contract was not executed because Congress had indicated that no contracts should be entered into which precluded the free disposal of Wilson Dam and the nitrate plants.

"The contract of January, 1934 between the Authority and the Power Companies provides for interchange of energy with the Power Companies and the rates set forth were based and established as dump power rates and were established on the same principle as the rates in the old contract. These rates are lower than the two mill rate provided in the old contract.

"The power companies have never profited by the purchase of Wilson Dam power and in certain years they lost substantial sums due to the annual guarantee of $560,000, and the impossibility of advantageously absorbing the guaranteed amount of power by reason of good water conditions. The sale price of all energy delivered by the Power Company averaged slightly over one cent per KWH and not 3.5 cents per KWH as set forth in your statement. The rates of the Alabama Power Company are uniform throughout the state and a customer one hundred miles away pays the same rate as a customer at the generating plant.

"In this connection I quote from the speech of Gov. Roosevelt at the Conference of Governors at French Lick, Indiana, June 1 and 2, 1931, as follows:

> " 'Also, we are taking one further step which has been taken by Public Service Commissions in several States, and that is the principle of not penalizing a man because he happens to live a fairly long distance from a main transmission line. The best example of that that I know is down in Alabama. The Alabama Public Service Commission realized some two years ago, I think it was, that in Northern Alabama they

have all the power in the world at very cheap cost. They have plenty of coal and have plenty of water power, and the actual cost of transmitting and distributing that power to the rural dwellers in northern Alabama would be extremely low. On the other hand, in southern Alabama, down on the Gulf (I think a distance of somethink like 400 miles—isn't that right, Dr. Hardman?) there is no coal and there is no water power. Therefore, the Alabama Public Service Commission laid down the rule that just because a man happened to have been born and brought up on a farm in southern Alabama was no reason for penalizing him grealy over his cousin or neighbor who happened to have been brought up in the northern part of the State, 400 miles away. The result is that the rates laid down for rural electricification in the State of Alabama provide substantially the same rate in the southern part of the State as in the northern part of the State. That is saying, in effect, that the farmer in northern Alabama is paying, frankly, a part of the cost of transmitting power 400 miles away for his fellow citizens of the same State. I believe that principle is being fairly well recognized today not only among Government agencies but also among the more intelligent and more progressive of the utility people.'

"While this letter is rather long, I want to give you the facts as I feel you have been furnished with incorrect facts for your statements.

"I enclose herewith copy of letter January 13, 1931 by the Alabama Power Company to Gen. Brown, Chief of Engineers and also copy of letter of January 16, 1931 from Gen. Brown to the Chairman of the Appropriations Committee of the House."

"Alabama Power Company
Birmingham, Alabama

January 13, 1931.

"P. W. Turner
Vice-President
"Gen. Lytle Brown,
Chief of Engineers, U. S. Army,
Washington, D. C.

"Dear General Brown:

"Since your testimony before the House Appropriations Committee in November, 1930, recently made public, press statements widely published, have created the impression that the Alabama Power Company has taken advantage of the fact that it only is in position to purchase Muscle Shoals power and has arbitrarily refused to pay a reasonable price and to purchase more than a small amount of the available output at Wilson Dam.

"These statements do the company a serious injustice. The contract, subject to thirty days cancellation, in effect, with certain modifications, since September, 1925, requires the company to use Muscle Shoals power when the demand on its system exceeds the water power output of its own plants. It has been recognized all along that the War Department is unable to contract for the delivery of a dependable supply for a definite period and that, therefore, the company has been required to maintain in its own system sufficient power capacity for peak load demands without regard to the supply under its contract with the United States from Wilson Dam. It is understood that it has used Muscle Shoals power in replacement of steam power. This has been the measure of the amount of power it could economically use from Wilson Dam.

The result has been that its steam plants have operated only at such times when the market demand has exceeded the combined output of its own water power plants and that of the Wilson Dam plant.

"Nevertheless, under this month to month contract, the company has paid the United States a total of $3,696,636 for Muscle Shoals power. Most of this money otherwise would have gone into the cost of generating equal amounts of power in steam plants. The contract with the United States has, therefore, conserved about 1,530,000 tons of coal.

"The best evidence that the company has been willing to pay a fair price for all the power at Wilson Dam, pending the time that Congress makes permanent disposition of the plant, is the contract negotiated in 1928 at the request of the Secretary of War, cancelable on eighteen months notice instead of thirty days, under which power, as conditions subsequently developed, would have been taken to date to have amounted to more than $6,000,000. Had the War Department been able to contract for the delivery of power for a definite period, cancelable on eighteen months notice, this company would have been able to contract to pay in excess of $2,000,000 annually since 1925 for the entire commercially available water power output at Muscle Shoals. Copies of correspondence leading up to negotiations of the contract in 1928 are hereto attached.

"Criticism is also made of the existing price schedule 2, 3 and 4 mills per kilowatt hour by those who do not understand the economic conditions. It is charged that the power is resold at rates averaging from 5 to 15 cents per kilowatt hour. Such criticism is not justified, nor is the statement true that the power is resold at rates averaging

from 5 to 15 cents per kilowatt hour. Before the price schedule was agreed upon, engineer officers of the War Department carefully investigated the records of the company to ascertain the increment cost of steam plant operation and, so far as we know, were convinced that the rates proposed was fair both to the Government and to the company under a contract terminable on thirty days' notice. Muscle Shoals power purchased by the company, including power generated in its own plants, is delivered to customers throughout the larger part of the State, at uniform rates fixed by the Public Service Commission of Alabama at an average rate of about one and two-tenths (1.2c) cents per kilowatt hour.

"While the facts are understood by officers of the War Department who have dealt with the company, they have not been developed before members of the Appropriations Committee in connection with the item in the bill appropriating funds for operation of the plants for next year. If, in your opinion this letter fairly states the situation in connection with the temporary contract now in effect, in justice to the company, we will greatly appreciate it if you will transmit it to the Chairman of the sub-committee, together with a copy of the correspondence relative to the proposed 1928 contract.

Yours very truly,

Alabama Power Company,
By P. W. Turner,
Vice-President."

"War Department
Office of the Chief of Engineers
Washington

January 16, 1931

"Honorable Will R. Wood,
Chairman, Committee on Appropriations,
House of Representatives,
Washington, D. C.

"My dear Mr. Wood:

"A letter addressed to me from the Alabama Power Company, dated January 13, 1931, together with correspondence referred to therein, relating to the sale of power from Wilson Dam, Muscle Shoals, is forwarded herewith for the information of your Committee in connection with the hearings held on November 19, 1930.

"The statements made in this letter as to the revenue received by the Government and the conditions under which the agreement have been negotiated, are substantially correct. The offer mentioned in paragraph 4 of the letter was in the form of a five-year contract, cancelable on eighteen months notice. The guaranteed revenue which would have been derived had this contract been consummated would have been about $1,625,000 more to the end of 1930 than the revenue received under the actual agreements, and during the years 1931, 1932, and 1933, would be sufficient to pay for operating and maintenance expenses, depreciation and approximately four per cent interest on the investment in the hydro-electric property. However, this contract was not accepted as its terms would have prevented the prompt disposition of the Muscle Shoals prop-

erty which it was then expected would be made by Congress at an early date.

"The statement of rates for power delivered to customers, contained in the next to the last paragraph, cannot be verified by this office, as information regarding such matters is not at hand.

Very truly yours,

Lytle Brown,
Major General, Chief of Engineers."

Plaintiffs introduced in evidence the public announcement by Tennessee Valley Authority of its power policy as set out as Exhibit No. 3 to the Bill of Complaint, which was admitted to be a correct copy, which statement was dated August 25, 1933.

The following excerpts from the minutes of the meetings of the Board of Directors of Tennessee Valley Authority, and from exhibits referred to and made part of the minutes were introduced in evidence by plaintiffs. At the time that these excerpts were offered the defendants objected separately and severally to the admission in evidence of each of the excerpts upon the ground that they were irrelevant and immaterial and upon the further ground that they related merely to motive, purpose or intention of the Directors, which was not in issue in this cause. Each of said objections were separately overruled by the Court and the defendants duly and legally reserved exceptions to each of said rulings. The dates and the plaintiffs' exhibit numbers are indicated at the beginning of the respective excerpts:

TVA minutes, June 26, 1933, Plaintiffs' Exhibit No. 1:

"No employee of the Tennessee Valley Authority should make any statements respecting matters of future policies or activities before such policies or activities have been brought before the board and action taken."

TVA minutes, June 26, 1933, Plaintiffs' Exhibit No. 2:

"The board directed counsel to request the Federal Power Commission not to grant further licenses in the Tennessee River Basin, and authorized counsel to file appearances and take appropriate action to oppose the granting of such further licenses."

TVA minutes, July 11, 1933, Plaintiffs' Exhibit No. 3:

"The discussion raised the issue of whether the Authority should seek an area arrangement with the Commonwealth & Southern Corporation under which the Authority would refrain from serving municipalities outside a particular area, provided the Commonwealth & Southern Corporation would refrain from operating within the area to be served by the Authority. It was suggested on the one hand that the arrangement was worth attempting; that it would be feasible; and that it would carry into effect the purposes of the President. On the other hand, it was pointed out that such an area arrangement was impracticable; that general cooperation from utilities could not be anticipated in view of the adverse effect such policy would have upon their position; that such a commitment would be premature at this time; that such an area arrangement would probably require many municipalities to acquire a distribution system, a long and slow process; that other municipalities outside such area, in the meantime, would be denied service un-

necessarily; and that much valuable time would be lost which should be devoted to carrying forward the objectives of the Corporation. As an alternative, David E. Lilienthal proposed that immediate steps be taken to enter into wholesale power contracts with the cities of Florence, Tuscumbia, and Sheffield, Alabama, using these municipalities as a proving ground and entering wedge. He suggested that the Authority's subsequent course be determined by events as they develop."

TVA minutes, July 30, 1933, Plaintiffs' Exhibit No. 41:

"Policies concerned with the power project were discussed. The question arose as to whether friendly attempts should be made to buy out power companies or whether the Authority should refuse to deal with them. It was suggested that the views of President Roosevelt and Senator Norris be obtained on this point.

Arthur E. Morgan proposed that an area be delimited roughly equal in size and corresponding in many respects to the Tennessee River drainage basin, in which the Tennessee Valley Authority might buy up the private power company properties. Under this proposal the Authority would have a clear field in which to operate.

It was suggested that a study be made of this proposal and of the cost involved. David E. Lilienthal was authorized to make such investigation and to employ as much help as is needed for this and other power studies to be made by him. It was understood that before the key positions are filled the names of applicants for these positions must be submitted to the Board for approval.

The Aurora power project, which comes before the Federal Power Commission for decision August 17, was discussed. Arthur E. Morgan suggested that it

might be well for the Tennessee Valley Authority to condemn the Aurora and Tennessee sites, as well as all other sites located by the Army Engineers, in order that the Tennessee Valley Authority would have control of future power developments in the area.

David E. Lilienthal suggested that wholesale power rates be definitely worked out on a conservative basis for the three communities near Muscle Shoals.

Construction of a transmission line from the Muscle Shoals Plants to the Cove Creek damsite was discussed by the Board which gave careful consideration to the time needed to build the line and to the engineering staff required to supervise its construction. The Board adopted the following resolution:

> 'Resolved, That at the earliest possible date the Board proceed with the construction of a transmission line from Wilson Dam to Cove Creek damsite, to provide power for construction purposes and for distribution to cities, counties and municipalities as from time to time may be necessary or desirable.'

In reaching this conclusion, it was pointed out that a tie-line connecting Muscle Shoals and Cove Creek Dam was essential to coordinated operation of these two power plants and that existing transmission lines of private companies were too circuitous, and not feasible otherwise. The decision to construct the tie-line was based upon the following facts; that low prices now exist but higher prices are predicted; that a considerable number of applications for power service from communities located near the transmission line have been received; that the need for power at Cove Creek for construction work is imperative; and that the demand for employment is great."

TVA minutes, August 5, 1933, Plaintiffs' Exhibit No. 41-j:

"It was decided that all publicity shall issue

through the Publicity Department and that special publicity dealing with particular phases of the work shall have the approval of the Director concerned before it is released."

TVA Minutes, September 18, 1933, Plaintiffs' Exhibit No. 4:

"The Chairman discussed the possibility of constructing the General Joe Wheeler Dam in the near future. He stressed the need for having available complete information on other projects, such as the Aurora Landing and Chickamauga dams, so the Board would be in a position to deal with proposals regarding such projects. David E. Lilienthal pointed out a conflict of interests in this connection, suggesting that the Corporation must not ruin its power market by making available at once extraordinarily large amounts of power but that it must be ready to deal with questions regarding these projects as they arise. He suggested that the cost of the preliminary investigations and construction work on such projects should, insofar as consistent, be allocated against navigation and unemployment relief and not alone against the power project. The Chairman concurred in this, stating that the Authority should not accept unwarranted charges against the power development. Harcourt A. Morgan warned the Board that Congress may force the Authority to build other dams as an emergency measure. He suggested that the Board make reasonable preparations in anticipation of such action. It was decided that the Chairman should see Senator Bankhead and discuss with him the policy of the Public Works Administration about the possible construction of other dams. David E. Lilienthal will consider various projects which have been suggested to get a general picture of possibilities and report at a future meeting."

TVA minutes, September 21, 1933, Plaintiffs' Exhibit No. 41 (b):

"The Board discussed what its policy should be with reference to the proposed construction of the General Joe Wheeler Dam with funds to be supplied by the Public Works Administration. David E. Lilenthal submitted a proposed statement of policy which has been approved by the Board. A true copy of the statement, labeled Exhibit 9-21-33b, is attached to these minutes and made a part hereof."

The proposed statement of policy attached to the foregoing minutes is Exhibit No. 9-31-33b, which is as follows:

"Statement of Policy

Part One:

The Authority has been requested by public agencies by Members of Congress representing this area, by leading citizens and by private groups, to cooperate and participate in securing funds from the Public Works Administration to be devoted to various public works projects intended to provide unemployment relief.

1. In general. The Board, of course, being a public agency, heartily favors large expenditures within the Tennessee Valley to relieve the acute distress which exists because of the depressed state of industry and agriculture. Few agencies are in a position to know more intimately the acuteness of this situation and therefore, few can feel more strongly the dire need of adopting every measure of reemployment.

2. Power and Navigation Dams to be constructed and held by the Authority.

The Board conceives that the power phase of the Authority's work was intended by Congress to operate on business principles and was to be self-liquidating

and self-supporting. Therefore, if the Board were to construct additional facilities for power production in the way of power dams, this would result in additions to capital account against which heavy fixed charges will run. The Board is now spending from its appropriation, substantial sums in the construction of Norris Dam and in the construction of a transmission line between Wilson and Norris Dam. If business principles are to be observed, as the policy of Congress requires, then the Board should not expend further sums than those indicated applicable to Norris Dam and the transmission line for power production purposes, until a market has been found which will support the existing investment and the investment now being made in Norris Dam and the transmission line.

To add further to the Authority's fixed capital charges by way of additional construction of power dams, until a market has been found for existing investment might make the conduct of the power project of the Authority impossible on a self-supporting basis for many years to come. Such a result might well imperil the future, not only of the power project, but of the broad plan of the Tennessee Valley Authority Act.

If, however, the construction of additional dams by the Authority is explicitly treated as a reemployment measure, then the Authority would be pleased to proceed with such construction as rapidly as possible, provided the funds are supplied from the funds of the Public Works Administration appropriated for industrial recovery purposes and provided further that in our accounting it is understood that additional dam facilities are needed for power purposes the additional investment will not be carried as a power investment of the Authority, but would be treated as any expenditure for any other public works enterprise, chargeable

against the Public Works Administration and for the purposes of that Administration. Then when such dam becomes useful, because of the market situation, for power production by the Authority, the Authority would then and not until then begin to be charged with the investment and the fixed charges applicable thereto.

Subject to these qualifications, the Board of Directors heartily approves the immediate construction of Dam Number 3, as an unemployment relief measure. An important consideration in our conclusion is the fact that the construction of Dam Number 3 will be a substantial aid to navigation on the Tennessee River below Chattanooga. Navigation locks are, in fact, now in process of construction by the Army Engineers at Dam Number 3. This position we conceive to be in the interest of the public welfare.

Part Two:

Power Dams to be constructed with public works money by public agencies other than the Authority or by private agencies using public works money.

If the Tennessee Valley Authority power program is to function as a business enterprise as Congress has directed, it must secure a reasonably adequate market in which to sell the power it has available.

It is now proposed that there be constructed within the Authority's market area, additional power facilities, primarily as an unemployment relief measure. Whatever the primary purpose, the effect would be to add further public power facilities to those already existing and in process of construction by the Authority. These additional facilities would be paid for principally from the same source as are the funds with which the Authority operates, namely, public moneys. Such further facilities would be constructed on a public stream over which the Authority has been given responsibility, that its development shall be ac-

cording to a plan formulated and executed by the Authority. On the one hand, therefore, Congress has directed the Authority to operate certain existing and future power facilities on a self-supporting basis, which implies the acquisition of a market. On the other hand, the proposal of additional construction at this time would add to the publicly financed power facilities in the same market area in such a way as to render more difficult of accomplishment the direction of Congress that the power development functions of the Authority function on a self-supporting basis. The addition of other publicly financed power facilities in the Authority's market area will make more difficult the attachment of a market adequate to support the Authority's present facilities or facilities in process of construction. In short, the effect would be that in one enactment Congress would tend to negative another enactment in the same session.

Therefore, we do not approve the construction of any dams for the production of power within the Tennessee Valley by agencies other than the Authority with public funds, at least until Muscle Shoals and Norris Dams' power has been marketed by the Authority. For these reasons, we have concluded to disapprove all governmental loans for the production of additional power within the area of the Tennessee Valley.

We are of the opinion that, in general, to carry through the objective of the Tennessee Valley Act, of an integrated development of economic resources of the region, it is imperative that the water power resources be developed as a single system, with single ownership and control. While concrete cases may arise in which this principle would not apply, the rule, we believe, is generally sound."

"The minutes of said Board of the meeting held September 21, 1933, recite, that a telegram was sent to Secretary Ickes advising that TVA approved the

construction of Dam No. 3 "as an emergency employment relief measure, on condition that it is built with public works money and not with TVA money, that the carrying charges and construction costs shall not be charged to the TVA until the demand for power justifies the construction for the purpose. The dam is an integral part of the navigation program for the Tennessee River, and will be a part of the power development program when it is needed—this position we conceive to be in the interest of the public welfare. The Board of Directors of the Tennessee Valley Authority took formal action to this effect."

TVA minutes, September 29, 1933, Plaintiffs' Exhibit No. 41 (c):

This excerpt relates to application by a committee from Hamilton County, Tennessee relative to the construction of Chickamauga Dam, proposing that TVA construct the dam with funds to be secured by Hamilton County under a contract with TVA for the latters control and operation of the dam, such dam to make provision for future installation of power facilities. The Board adopted a resolution concurring in the suggestion based on the securing of the funds by Hamilton County, the dam to be purchased from Hamilton County "on the basis of fair value" if Congress authorized TVA to do so and if discretion determines this course. It was to be understood that there would be no power operation of the dam by Hamilton County or any other agency "unless or until the Tennessee Valley Authority agrees, or unless operation is done directly by the Tennessee Valley Authority by recapture.

The resolution concluded with this clause:

"It is understood that the participation of the Tennessee Valley Authority in its present construction

is only to enable the County to carry on its unemployment relief program, and not because of present necessity of the dam."

TVA minutes, October 13, 1933, Plaintiffs' Exhibit No. 5:

"David E. Lilienthal submitted a memorandum entitled 'Basis for Negotiation' which might serve as the basis for negotiations with private utilities. A copy of the memorandum is attached and made a part of these minutes. Alternative #1, proposing the sale of entire power output of the Authority to the private utility, subject to instructions as to the resale price in accordance with section 12 of the Act, is in the opinion of the board not open to the Authority and that negotiations on this basis cannot be entered into. Alternative #2, proposing an agreement with the private utilities binding the Authority to confine its operations within a certain definite territory, was not considered by the board to be a satisfactory basis for negotiations with privately owned utilities, and a definite binding agreement limiting the Authority's operations was not feasible as a matter of law or policy.

The board was reminded of President Roosevelt's desire that the Authority's power operations be centered in a delimited area. The idea of dividing territory between privately owned utilities and the Authority met with the approval of the board but the suggestion that the Authority be excluded from operating in certain areas was disapproved.

David E. Lilienthal called attention to an area in northeastern Mississippi which he recommended as an excellent place for the Authority to start the development of a sound power program and recommended that this area be included in the Authority's operations. The board was of the opinion that requests for power from areas contiguous to the Valley area should

not be turned down, especially when such areas are near the power generating site.

The question was raised as to whether or not the power program which is being set up will provide a yardstick which can be applied with accuracy to the power industry. The consensus of opinion was that an accurate yardstick might be developed within three or four years if the Authority's power operations can be centered in a delimited area.

Arthur E. Morgan suggested that the Authority issue a statement of policy which would put it in a position of making a fair and practical attempt in a delimited area to develop a real yardstick which could be applied to the power industry.

David E. Lilienthal stressed the fact that the Authority must work towards an increase in the use of electricity as its main power outlet and that increased uses of current would benefit both the utility companies and the Authority. He called attention to the possibility of marketing electrical appliances and suggested that the Authority get permission from Congress to do this. This proposal met with the general approval of the board. The board decided to proceed with its program for furnishing power to the three cities at Muscle Shoals and to the territory near Tupelo, Mississippi."

Attached to and made a part of these minutes of the meeting of the board of directors of the Tennessee Valley Authority held October 13, 1933, is an Exhibit designated as Exhibit 10-13-33a—"Basis for Negotiation" to the following effect:

"(a) That two major holding companies, the Commonwealth & Southern Corporation and the Electric Bond and Share Company, own a network of transmission lines and distribution systems, together with generating facilities within the area of operations of the Tennessee Valley Authority. In the scale of rates

charged by these companies, these facilities are more than ample to meet existing effective demand for electric service and represent an investment of many millions of dollars. A substantial, and perhaps the major, part of the securities issued to finance these facilities are in the hands of the public.

"(b) The Tennessee Valley Authority has available about 105,000 kw of firm power at Muscle Shoals and with the completion of Norris Dam this will be more than doubled. The existing demand is being adequately supplied by the privately owned utilities. There are only two ways whereby the Authority can dispose of this additional block of power: (1) Sale in bulk to the private utilities. Since these utilities have now adequate supplies, this alternative implies the creation of additional demand consequent upon either a substantial industrial development, or substantial increases in domestic farm use, rendering existing privately owned facilities inadequate. Distribution would continue to be through the facilities of existing companies. Rates to the ultimate consumer of power purchased from the Authority would be regulated by the Authority under terms of the contract of purchase. (2) By the sale of such power to the municipalities or to the public agencies which are now being served by private utilities. The Authority might dispose of its power by taking part of the field now occupied and served by the existing utilities. Since there are few municipalities in the area which own their distribution systems such a method of disposing of the Authority's power would involve the acquisition by such municipalities of the distribution facilities now owned by the utilities or the construction of competing facilities. The statute contemplates both the above methods of disposing of the Authority's power; that is, sale to the existing utilities and invasion of the field now occupied by the utilities, but

the primary method is distribution to and through public agencies.

"(c) President Roosevelt has uttered publicly that one of the functions of operation of Muscle Shoals is a "yardstick" by which to measure the reasonableness of electric rate charges. In view of his sponsorship of this legislation, the yardstick idea must be taken to be definitely a part of the policy embodied in the Tennessee Valley Authority Act.

"(d) The Authority would violate the purposes and policies laid down for its direction if it were to sell its entire output to privately owned utilities, even if such corporations were ready and willing to make such a purchase at a figure favorable to the Authority. The Authority must consider the sale of electricity to non-profit agencies as a preliminary obligation and within reasonable limitations hold its power resources available for purchase by such agencies which can be feasibly and economically served. For the Authority's operations to provide a yardstick of public operation by which to measure private operations it is essential that the Authority engage not only in the generation but participate in the transmission and distribution of electricity, since these latter two phases of electric service represent the most important part of the cost of such service. A public yardstick to have value necessarily means public operation from power house to consumer's premises. (It is for this reason that the Authority has adopted a policy of rate and accounting control of municipal distribution operations.)

"(e) Contracts with private utilities for sale of current is definitely contemplated by the law, subject only to the policy of giving preference to public agencies. The following are possible alternatives which might serve as the basis for negotiations with private utilities:

(Alternatives)

"1. Sale of entire power output of the Authority to the private utility, subject to restrictions as to the resale price in accordance with Section 12 of the Act.

2. An agreement with the private utilities binding the Authority to confine its power operations within a certain definite territory.

3. The most feasible alternative basis for negotiation consistent with our conclusions as to the law and the yardstick policy, which we conceive to be part of the law, would be something along the following line:

The Authority would proceed to enter into contracts with municipalities owning or about to own their distribution systems in the area immediately around Muscle Shoals and in the Northeast Mississippi territory. This supplies some public operation and in a measure meets the yardstick policy.

Surplus power not needed in the aforesaid areas should be sold to the private power companies at a remunerative rate to the Authority under a cooperative arrangement whereby the Authority will attempt to secure from Congress funds with which to finance large-scale purchasing and distribution of heavy use electrical appliances, notably ranges, refrigerators and hot water heaters. The Authority will seek to be authorized by Congress to provide for the sale of these appliances to any customers directly served by the Authority, or indirectly served by the Authority, that is to say, customers on the distribution system of private utilities which are purchasing the Authority's power at wholesale. This arrangement will furnish an inducement and a consideration to the private power companies for the purchase of our surplus power. In such an arrangement it should be provided that the resale price fixed by any private power company on whose system Authority power is being con-

ducted and utilized should carry a very low rate at the end of the schedule which will encourage and make feasible the use of the heavy appliances, the financing of which is provided for under this cooperative arrangement. It is almost certain that as a condition of any such arrangement the power companies will desire some kind of assurance that the Authority will not serve at wholesale the municipalities which do not now own their distribution systems, the point being that the principal fear of the utility is that distribution systems which they now own will be acquired or that they will be subject to competition in the distribution end of the business. Such an agreement the Authority cannot make for the same reason set out as to an agreement to confine operations to a certain territory. If a municipality being served by a private company in whole or in part with power supplied at wholesale by the Authority and within the purview of this cooperative arrangement as to appliances determines to acquire its distribution system and applies to the Authority directly for a supply of electricity, the present state of the law, in my judgment, would not permit the Authority to reject such application if in other respects a feasible and economical arrangement were proposed.

4. The Authority could urge that a substantial area now served by private utilities be transferred to public agencies. That is to say, that in the area, for example, in a strip of perhaps fifty miles in width between Muscle Shoals and Norris Dam, that it be definitely determined that electricity shall be furnished to the consumers through public agencies, principally municipalities. This would be an important accomplishment of the yardstick theory. It would necessitate the Authority going to Congress for a large appropriation with which to assist in the financing of municipalities for the acquisition by them of their distribution systems. Obviously, the power companies would not

be interested in this proposal unless they were given assurance that their properties would be purchased and not merely that the Government would finance competing systems which would leave them with their property on their hands. Some measure of protection against unreasonable acquisition prices would have to be provided. In order to take care of the existing generating facilities of private utilities, provision would have to be made either for the Authority to buy a part or all of their output or to buy the facilities themselves.

5. Another possible alternative would be an agreement with the power companies to accept as compensation for the distribution systems in such area the bonds of the respective municipalities. Such a measure, however, has this difficulty, namely, that the municipalities generally are not in position to issue general obligations. If they issued liens against the property a conflict of interests is produced which can be productive of much disharmony and operating difficulties.

6. A further alternative would be for the Authority to cooperate in working out some method of financing these acquisitions through private sources. The difficulty here is that for the Government to work on a cooperative basis with a private investment concern presents some difficult questions of policy and control. It virtually shifts for the time being the control of the municipal systems from the governing bodies to a centralized financial organization which, under these circumstances, would exercise considerable power.

If none of these alternatives is acceptable to the Board or can form the basis for successful negotiations with the companies, the Board is left to its present policy, namely, of entertaining applications from any municipality within the areas described in the Authority's announced power policy, of building necessary transmission lines and other facilities

to serve such applicants and to gradually build up an area of operations which, over a period of years if successful, will furnish a balanced load and insure the accomplishment of the yardstick objective. This could be, and it is desirable that it should be, combined with an arrangement with the power companies whereby they will continue to purchase as much power as we have available on the most advantageous basis that can be negotiated. At the present time the Authority's operation expenses are being met with some surplus out of the proceeds of the two mill contracts with the Alabama Power Company. Continuation of some kind of contract for the purchase and sale of power at wholesale to the Alabama Power Company is important to the Authority.

7. In pursuing the present practice of Authority of gradually working toward the building up of a separate system, it is almost inevitable that the availability of the Authority's power at fair rates will produce a market. Part of this market will be the outgrowth of agricultural experimentation projects which will spread to other areas not now served by any central station energy. Part of this growth will be through the establishment, for example, of electrochemical plants along the transmission system. In other words, the building up of a balanced load is not by any means wholly dependent upon our taking away of a market now served by the private companies. That is to say, it is not wholly dependent on the result of municipal elections and acquisitions."

TVA minutes, October 14, 1933, Plaintiffs' Exhibit No. 41 (d):

"The Chairman announced that President Roosevelt had ordered the Tennessee Valley Authority to proceed at once to construct General Joe Wheeler Dam (Dam No. 3), and to use its own funds for this pur-

pose. The President will undertake to have Congress reimburse the Corporation at the next session.

The Chairman requested authority to increase the engineering force and to employ John L. Savage, Sherman M. Woodward, Charles H. Paul, Charles H. Locher, and such other men as are needed to make preliminary investigations, prepare plans, and to begin construction of the General Joe Wheeler Dam. The Board approved the request."

TVA minutes, October 16, 1933, Plaintiffs' Exhibit No. 6:

"David E. Lilienthal and Llewellyn Evans explained certain computations made in establishing a basis for determining power rates, discussed some of the underlying data relating to power costs and rates, and referred to some of the power experts consulted in making estimates and reaching conclusions.

David E. Lilienthal submitted a memorandum entitled 'Basic Provisions for Contracts between the Authority and Municipalities for Power,' a true copy of which, labeled Exhibit 10-16-33a, is attached to the minutes of this meeting and made a part thereof. The Board approved the inclusion of these basic provisions in all contracts with municipalities for power.

David E. Lilienthal submitted a 'Wholesale Rate Schedule for Tupelo Transmitted Power,' which was approved by the Board. A copy of this schedule, labeled Exhibit 10-16-33b, is attached to these minutes and made a part thereof.

The Board adopted the following resolutions at this meeting:

'Resolved, That every contract to supply power to municipalities be made to contain, in substance the provisions set forth in a memorandum titled, "Basic Provisions for Contracts between the Authority and Municipalities for Power," a true copy of which, labeled Exhibit 10-16-33a, is attached to these minutes.

Resolved, That the Authority enter into contracts to supply power to the Alabama towns of Florence, Tuscumbia, Sheffield, and Muscle Shoals City, and to such other municipalities located along the Tupelo transmission line, as already have or will construct at their own expense suitable power transmission facilities, at rates in accordance with the wholesale rate schedule for Tupelo transmitted power contained in Exhibit 10-16-33b, a true copy of which is attached to these minutes.

Further Resolved, That Arthur E. Morgan be and he hereby is authorized to execute on behalf of the Authority, said contracts to supply power to municipalities.'

Exhibit 10-16-33a attached to and made a part of the minutes of the meeting of October 16, 1933 designated as 'Basic Provisions for Contracts between the Authority and Municipalities for Power,' after reciting that the Authority is empowered and authorized to sell surplus power not used in its operations and for operation of locks and other works generated by it to States, Counties, municipalities, corporations, partnerships or individuals and to enter into contracts for such sale for a term of not exceeding twenty years and further reciting that this policy is further declared to be that the projects provided for shall be considered primarily for the benefit of the people of the section as a whole and particularly to the domestic and rural consumers to whom the power can economically be made available, and that sale to and use by industry shall be a secondary purpose to be utilized principally to secure a sufficiently high load factor and revenue returns which will permit domestic and rural use at the lowest possible rates and in such manner as to encourage increased domestic and rural use of electricity, the form of contract provides in part as follows:

1. The Authority agrees to furnish electricity to the municipality for a period of years.

2. The municipality will pay the Authority for the electric service under such rules and regulations as the Authority may from time to time prescribe according to a schedule of rates to be set out.

3. For the making of adjustments in the rates in the event of major increases or major decreases in general price levels of a substantial character.

4. For the adjustment of the rates in case the Authority enters into a contract with other municipalities at a lower rate.

5. Limiting the supply by the Authority to a specific kilowatt maximum demand.

6. For the sharing by the Authority with purchasers of power from it, the benefits accruing in the future of reductions in cost of generating and transmitting power.

7. Specifying the schedule of rates which the municipality will charge its domestic, commercial lighting, rural and industrial consumers.

8. A revision of the rates will be made only in accordance with the principles set out in the contract.

9. The City shall administer its municipal electric system as a separate department or administrative unit of the city and not mingle funds and accounts with general city operations. The city will keep its utlity accounts according to a system of accounts prescribed by the Authority after conference with the city as to such system of accounts, which system of accounts will so far as possible be uniform with other systems prescribed and applied in other municipalities purchasing power from the Authority.

10. The rates fixed by the municipality shall be without discrimination as between consumers of the same class and no rate shall be fixed or practice

adopted which will grant a discriminatory rate, rebate or other special concession to any consumer or user served by said municipality.

11. The manner in which the city will dispose of revenues from the operation of its municipal electric system.

12. The provisions as to accounting and rates and the disposition of funds by the municipality are a condition of the contract and that their violation renders the contract voidable at the option of the board of directors of the Authority.

13. The municipality recognizes an obligation to serve adjoining farming areas wherever such service can be feasibly rendered."

TVA minutes, October 24, 1933, Plaintiffs' Exhibit No. 7:

"David E. Lilienthal reported the results of his conference with the Commonwealth & Southern Corporation and stated that substantial progress was being made. It was his impression that the utility is tacitly recognizing that the Authority is definitely in the power business and that its purpose in being there is to develop a 'yardstick' for measuring power costs.

The Authority's proposal to delimit an elliptical area for its power operations was not favorably received by the utility, Mr. Lilienthal reported, but the utility has agreed that municipalities which desire to obtain power from the Authority shall not be denied this privilege.

It was suggested that the Authority might start its power operation in a relatively small area and expand as conditions warrant since the power program of the Authority assumes that surplus power will be sold to power companies upon request, subject to recovery should such surplus power be required for the use of municipalities.

The suggestion was made that the Authority buy

the Tennessee Electric Power Company. The advantages and disadvantages of such a purchase were discussed at length. Mr. Lilienthal pointed out that present excess power capacity should be considered and that existing distribution systems should not be duplicated.

David E. Lilienthal suggested that the Authority attempt to develop a technique for appraising power distribution systems.

Ways and means of acquiring the power company's property were discussed. Arthur E. Morgan suggested that purchase might be made by means of a bond issue. He pointed out the merits of the plan and said it would place the Board in the position of having taken advantage of every possible opportunity to carry out a sound power program.

The results of his conference with manufacturers of electrical appliances were described by David E. Lilienthal who stated that the companies were in complete accord with the policy of the Authority to increase domestic consumption of power through greater usage of electrical appliances. He expressed the opinion that the business of selling and installing electrical appliances could be put on a self-liquidating basis and that this aspect probably would meet with the approval of Congress, the Reconstruction Finance Corporation, and the public Works Administration."

TVA minutes, October 24, 1933, Plaintiffs' Exhibit No. 41 (k):

"The results of his conference with manufacturers of electrical appliances were described by David E. Lilienthal who stated that the companies were in complete accord with the policy of the Authority to increase domestic consumption of power through greater usage of electrical appliances. He expressed the opinion that the business of selling and installing elec-

trical appliances could be put on a self-liquidating basis and that this aspect probably would meet with the approval of Congress, the Reconstruction Finance Corporation, and the Public Works Administration.

"A memorandum dated October 20, 1933, titled 'A Proposed Cooperative Program Between The Tennessee Valley Authority And The Manufacturers of Electrical Equipment' was submitted by David E. Lilienthal who said that the proposed program had been presented to the manufacturers of electrical appliances. A true copy of the memorandum, labeled Exhibit 10-24-33a, is attached to these minutes and made a part hereof.

"David E. Lilienthal recommended that the Authority proceed with its power plans for the three cities at Muscle Shoals and the northeastern Mississippi area; that negotiations to supply power to towns along the projected transmission line between Wilson Dam and Norris Dam be continued; and that the Authority attempt to develop additional uses for power.

"Arthur E. Morgan suggested the electrification of a railway at Asheville, North Carolina, as a possible power outlet for the Authority. He also mentioned as a possibility for increasing power usage the development of some four hundred deposits of manganese ore in the Valley Region.

"The general conclusion of the Board was that conferences with the power companies should not be discontinued as long as there is evidence of good faith in the negotiations; that conferences regarding the distribution of electrical appliances to encourage the use of electric power should proceed; that there should be a continuation of effort toward working out an arrangement for delimiting power areas; and that further consideration should be given to the proposal to purchase the Tennessee Electric Power Company's property.

"It was decided that Mr. Lilienthal should confer

with Senator Norris and get his views on the power projects and negotiations pending."

TVA minutes, November 27, 1933, Plaintiffs' Exhibit No. 8:

"David E. Lilienthal reported that he is attempting to work out a comprehensive plan with the cooperation of the Commonwealth and Southern Corporation which will enable the Authority to set up an area for its power operations, and in which its relations with the private utilities will be comparable to the relations which might exist between two privately-owned utilities operating in the same area. He stated that he would like to integrate the existing facilities but not in any way relinquish any of the rights that the Authority is trying to establish in connection with its experimental power project.

He pointed out that through agreements covering the use of rights-of-way and the interchange of facilities, the Authority can cut down its power construction budget tremendously because the program of constructing costly transmission lines can be delayed until the Authority is in a position to see clearly the character of its objectives and determine the quality of the obstacles which confront its efforts."

TVA minutes, November 27, 1933, Plaintiffs' Exhibit No. 41 (e):

"David E. Lilienthal reported that he is attempting to work out a comprehensive plan with the cooperation of the Commonwealth and Southern Corporation which will enable the Authority to set up an area for its power operations, and in which its relations with the private utilities will be comparable to the relations which might exist between two privately-owned utilities operating in the same area. He stated that he would like to integrate the existing facilities but not in any way relinquish any of the rights that the Au-

thority is trying to establish in connection with its experimental power project.

He pointed out that through agreements covering the use of rights-of-way and the interchange of facilities, the Authority can cut down its power construction budget tremendously because the program of constructing costly transmission lines can be delayed until the Authority is in a position to see clearly the character of its objectives and determine the quality of the obstacles which confront its efforts.

In accordance with Mr. Lilienthal's suggestion, the Board adopted the policy of holding up actual construction of transmission lines, except those being constructed in rural districts by labor provided by the Civil Works Administration, until January 1, 1934, so that the results which will accrue from the operation of the program now being prepared can be observed. The planning, drafting, and specification work is to proceed inasmuch as the results of this effort can be used elsewhere.

The Board approved Mr. Lilienthal's work and authorized him to continue his negotiations with the utility as outlined and to report the results of his conferences to the Board.

Mr. Lilienthal stated that he had been convinced, since he had conferred with the Electrical Manufacturers Association on the project of making and distributing low cost domestic electrical equipment of good quality, that the policy for the Authority to follow is to contact all manufacturers of electrical appliances in order to get the benefit of competition on prices. One advantage would be that the most aggressive and most imaginative manufacturer would be the one to set the price and quality rather than the dullest and least ambitious of the group."

TVA minutes, December 16, 1933, Plaintiffs' Exhibit No. 41 (l):

This excerpt recited approval by the Board of the project submitted by David E. Lilienthal dated December 6, 1933 entitled "Construction of Rural Electric Transmission lines in the Five Mississippi Counties of Lee, Pontotoc, Monroe, Alcorn, Tishomingo, and in Lauderdale County, Alabama."

The project referred to in the foregoing minutes recited that the rural transmission lines thus authorized to be constructed would be made in connection with the small industry and agricultural development projects initiated in Lauderdale County, Alabama by the Industrial and Agricultural Relations Section under Dr. H. A. Morgan's general direction. The project contemplated the securing of rights of way and permits to use state and county highway rights of way for the transmission lines, and concluded with the paragraph:

"It is understood that the construction of these rural transmission lines is not for an immediate use; after the lines are completed it will be necessary to provide transformers and substations to step down the current from the transmission line, and make the physical connection. It will also be necessary to set up the distribution management organization or system to make contracts with the farmers, and operate the rural lines. It is contemplated that the distribution over the rural lines to be constructed may be in charge of a cooperative association to be set up by the industrial and agricultural section of Dr. H. A. Morgan's department. By furnishing the materials and equipment used in the construction of the lines, the Government may retain title to these lines as long as it may be deemed necessary by the Authority."

TVA minutes, December 16, 1933, Plaintiffs' Exhibit No. 41 (m):

"The Board discussed the Aurora Landing Dam project, and reached the conclusion that it would not be advisable to have the dam financed and built by private parties, inasmuch as such an arrangement would interfere with unified control of the water power development of the Tennessee River system.

The Board decided not to make at this time a survey of the flood control problem affecting the city of Chattanooga, as requested."

TVA minutes, January 19, 1934, Plaintiffs' Exhibit No. 41 (n):

"The Board considered the desirability of establishing complete control and jurisdiction over all power sites in the Tennessee Valley Area so that the power resources of the Valley can be developed in an orderly, systematic, and efficient manner. Messrs. Bock, Snyder and Swidler were instructed to study the problem and make recommendations to the Board.

A request received from the Lord Construction Company asking permission to proceed with the construction of a proposed steam power development located about one hundred (100) miles east of Asheville, North Carolina, was referred to Mr. Lilienthal for reply."

TVA minutes, March 30, 1934, Plaintiffs' Exhibit No. 41 (o):

The minutes of this meeting approved a project entitled "Tennessee Valley Section of the National Plan." This project contained the following provisions:

"**Purpose of Project:** To prepare a comprehensive regional plan of the entire Tennessee River Basin, as a guide and coordinator of public and private developments now under way or in prospect.

Personnel Required: Staff of 30, to be built up during remainder of February, March and April, together with consultants as needed.

Appropriation Required: (From 1934-5 Budget, submitted February 15, 1934—Division of Land Planning and Housing, Regional Planning Section.)

Personal Services—Project R. P. 1:	$30,769.50
Other Obligations (Supplies, Communication, travel, etc.—Share of $13,500 total shown in Budget)	4,000.00
Administrative expense—(Share in administrative expense of Regional Planning Section and of Land Planning Division)	4,000.00
Total—To June 30, 1934	$38,769.50

Time Required for Completion: Remainder of fiscal year 1934, continuing through 1935 in expanded form, for completion of major portion of plan by June, 1935. Work to go on thereafter as continuation project with reduced staff.

Cooperation: All Divisions. This is essentially a project for the coordination of all T. V. A. and outside activities affecting land development. It will depend, for factual material and recommendations, on all Divisions engaged in development work, as well as on Federal, State and local agencies.

Need of Project: The Tennessee Valley is not waiting for a plan—its development is constantly going on and the pace is daily quickening. During the next few years miles of new pavement will be laid that will later be abandoned, expensive bridges, schools and homes will be built below the level of future lakes, settlers will start farms on land that shortly will be incorporated in public parks and forests, transmission lines will be built to serve areas that will be depopu-

lated, mistakes by the hundred will be made, costly mistakes and damaging mistakes,—unless there is a comprehensive plan against which individual developments can be checked in advance.

The Authority is embarking on a hydro-electric program which will completely change the physical structure of large sections of the Valley, and will affect every part of it. Extensive rearrangement of the highway system and of railroad lines will be required. Other parts of the program, coupled with the operations of other Federal agencies will alter established modes of living, change farming methods and industrial operations, make substantial changes in the ownership and use of land, and cause major shifts in population.

The result of all these forces acting in the Valley will be utter confusion unless there is prepared a master plan thru which they may all be coordinated and directed toward a common objective. The entire program of the Authority will be brought to naught and the huge public and private investments in the Valley jeopardized if the establishment of such a plan is too long delayed. Its preparation is a long and careful process, it cannot be completed over night. It will require extensive study, wide collaboration, and much reshaping and adjustment after it is put in preliminary form. An early beginning is therefore imperative.

It is to develop the skeleton of such a plan that this Project is set up. Every part of the Valley program, whether it is physical or social or economic or political, public or private, relates in some way to the arrangement and use of land, and thru its relation to the land is brought into relationship with every other part. Land planning is the coordinator between the physical construction of dams and roads, the economic effect of cheap power and fertilizer, and the social composition of the region. Thru the planning of the physical development of the Valley, the other essen-

tial elements of planning are brought together and given comparable expression.

A comprehensive plan presented graphically will bring out instantly any **conflicts that may exist between highway and reservoir proposals** and **lead to their correction before expensive construction is undertaken.** It will show the relationship of proposed centers of agricultural or industrial production to their urban markets, the avenues for transportation of their products, their place in the power transmission system. Map presentation will show at a glance the bearing on county consolidations of physical barriers, routes of communication and population centers. It will show the relative amounts of land and relative position of areas classed as crop or grazing land, forests or sub-marginal areas, and relate them to centers of population, mineral resources, transportation, and all the other elements of the Valley life. Map presentation of physical conditions and proposals frequently discloses economic opportunities arising from the juxtaposition of factors whose relationship would otherwise be missed.

As a protection to the Authority itself against costly mistakes; as an aid to intelligent coordinated planning of the Valley life; and as a guide for those myriad private and public developments in progress thruout the Valley at all times, a master plan of the whole Valley area is urgently needed, and the Division of Land Planning and Housing herewith requests authority to commence its preparation.

The type of personnel required for this work will not be readily found; and it will probably be some time before an adequate and qualified staff can be selected and brought together. For this reason at least preliminary authorization will be required several weeks before the project itself can be inaugurated. The emphasis of all branches of the President's program on planning has already brought into Government service the majority of those proficient in the

planning field. There are few, if any, of those qualified for a responsible part in the preparation of a Valley plan, who are in need of employment. The result is that this Division will have to offer salaries in excess of those received in other professions where the number of men available is greater or the current demand less, and it will have to offer an opportunity for constructive service and a degree of permanency at least as great or greater than is now offered in other planning activities of the Government. It is believed that the salary schedules set up in the budget for this project are sufficient to attract the type of men required if reasonable permanency can be assured."

TVA Minutes, April 13, 1934, Plaintiffs' Exhibit No. 9:

"A project, titled 'Marketing of Power Produced by the Tennessee Valley Authority,' was approved. A true copy of the project, labeled Exhibit 4-13-34e, is attached to these minutes and made a part hereof.

Exhibit 4-13-34e attached to and made a part of the minutes of this meeting, designated as 'Project Authorization Request,' is to the following effect: From D. E. Lilienthal, dated April 4, 1934, Project, Electric Division, Project Title, Marketing of power produced by TVA; Purpose, Increasing the use of electricity in Valley area, Procedure, Employment of advertising agency to furnish special technical assistance in preparation and supervision of specialized printing service and material; Additional personnel required; Advertising agency; Services or cooperation of other departments required; Information, Sales Promotion, Purchasing, Accounting, Electric Divisions, EHFA; Estimated Cost Payroll $10,000, other expenses $10,000, total $20,000. Recommendation accompanying the Project Authorization Request is as follows:

Page 3

Project Authorization Request
Project Electric Division
Recommendation

In order to lay plans for the marketing of power, to assist our municipal customers in the most efficient ways of increasing their consumption, to assist in reducing the distribution cost of appliances in municipalities served by our wholesale contractors, and to formulate plans for the general program of increasing the use of electricity, it seems essential that a contract be entered into between the Tennessee Valley Authority and a large, thoroughly equipped advertising agency, for a period of four months. It is anticipated that the results of this personal service employment will produce results which will be extremely valuable to the Electric Home and Farm Authority, and that the Electric Home and Farm Authority will undoubtedly be willing to bear half of the cost of this service. Mr. Phillips has interviewed the leading advertising agencies in this particular field, and has secured extensive submissions from them.

It is recommended that the Tennessee Valley Authority enter into a contract with the firm of Young & Rubican, Inc., at a lump sum payment of $10,000.00 to cover the above described services over a period of four months.

These services will include the preparation and technical work involved in the issuance of publications of a character requiring special service. Compensation for the furnishing of such printed material will be on the basis of actual cost of the printing. Compensation for the services rendered by Young & Rubican, Inc., in the preparation, placing and supervision of this printing will be covered in the compensation of $10,000.00 under the contract recommended above.

TVA Minutes, April 13, 1934, Plaintiffs' Exhibit No. 10:

At the meeting of the Board of Directors of Tennessee Valley Authority held on April 13, 1934, there was approved a project designated 'Tennessee Valley Authority Project Authorization Request,' to the following effect:

"From Llewellyn Evans, Chief Engineer, dated March 27, 1934, Project Title, Acquisition of Power Distribution Facilities to serve the City of Athens and Limestone County, Alabama. Purpose, Purchase of properties from Alabama Power Company to serve Athens, Alabama and Limestone County, covered in contract negotiated with the above company January 4, 1934. Procedure, Legal Department to examine title of all property involved as described on page 3 of this request and Treasury Department be authorized to make payment for property transferred thus acquiring title in the name of the Tennessee Valley Authority after engineering division has made suitable inventory. Estimated cost, $177,396.52. Recommendations, Briefly this project consists of completing a portion of the contract entered into January 4, 1934, between the Tennessee Valley Authority and the Commonwealth & Southern Corporation to purchase properties owned and operated by the Alabama Power Company in Limestone County, Alabama. The properties to be taken over are described in Exhibit B of the Commonwealth & Southern contract as follows:

Page 2 of Exhibit B: Approximately 14½ miles of 44,000 volt transmission line from Athens to Belle Mina.

Sheet 4 of Exhibit B: Belle Mina central substation, consisting of three 150 kva transformers with one outgoing unregulated circuit and the Athens district substation consisting of four 1000 kva transformers 44,000 to 11,000 volts supplying three outgoing unregulated circuits.

Sheet 5 of Exhibit B: Item 10, which lists all of the rural lines in Limestone County.

Sheet 6 of Exhibit B: Items 8 and 10, describing the Belle Mina distribution and the Athens district distribution.

It might be well at this point to discuss properties described on Sheet 6 of Exhibit B, since this property is not included in the $1,000,000 mentioned in paragraph 2 of the Commonwealth & Southern contract. Without item No. 10, Exhibit B, Sheet 6, will be unable to serve the city of Athens and by acquiring the property listed in this item as well as Item 8, we will acquire all power facilities in Limestone County. The city of Athens being a municipally owned distribution system, will be able to supply all of the service required within the corporate limits. The Tennessee Valley Authority can organize the remaining rural territory consisting of Belle Mina, Capshaw, Tanner, Ardmore and Elkmont into a rural power district administrated by the present personnel of the Alabama Power Company at Athens, or personnel that we may see fit to substitute in place of them and thus operate this rural section until such time as a responsible rural cooperative organization may be formed to take over the operation of this territory.

There might be some hitch in the acquisition of the properties listed on Sheet 6 of Exhibit B, due to the fact that this property is not included in paragraph 2 of the contract but we are sure the Power Company would prefer to accept our money for a definite sale rather than risk the chance of these facilities being duplicated by the communities themselves."

TVA Minutes, June 30, 1934, Plaintiffs' Exhibit No. 41 (p):

"David E. Lilienthal described to the Board the status of negotiations with the Alabama Power Company and submitted recommendations concerning the acquisition of electric distribution properties in north-

ern Alabama. The Board unanimously adopted his recommendations which are containued in Exhibit 6-30-34b, a true copy of which is attached to these minutes and made a part hereof."

The recommendations referred to were as follows:

"To: The Board of Directors
From: David E. Lilienthal
Date: June 30, 1934.

Subject: Recommendations to the Board for Acquiring Distribution Properties in Northern Alabama.

It is proposed that the Authority shall immediately acquire from the Alabama Power Company distribution properties in northern Alabama to be operated under the following plan.

1. Properties shall be purchased for the lump sum of $1,000,000.00 and retained by TVA for an interim period of direct operation during which additional rural lines will be constructed and the urban properties rehabilitated and improved. The rates to be charged shall be the basic TVA rates plus a surcharge of 10 per cent to be applied to all classes of customers. This surcharge is required in order that the capital investment may be returned to the TVA within 10 years. If no surcharges were imposed, it would require from 15 to 25 years to retire the investment.

2. At the expiration of the interim period which may be from six months to several years as the Authority may determine, the properties will be reconveyed to local municipalities, county associations, or other local organizations, upon terms and conditions outlined in the attached "Plan for Distribution of TVA Electricity in North Alabama."

3. During the period of operation, the accounts will be carefully kept and all profits from operations and income from surcharges will be applied toward the re-

duction in purchase price offered to the local organizations.

4. It is understood that the plan will not be operative unless and until definite and satisfactory commitments have been made by local organizations expressing their willingness to assume responsibility and control of local distribution systems at a later date.

5. The proposed plan will permit the Authority to increase its power market almost immediately. It will prevent duplication of existing systems by municipalities now contemplating construction with PWA funds. It will make possible the throwing together of rural and urban electric systems and the development of economic load areas.

6. Figures on evaluation and earning power justifying the option price of $1,000,000.00 which TVA has obtained from the Commonwealth and Southern, are given in a memorandum entitled "Program for Acquisition of Distribution Properties in Northern Alabama."

TVA minutes, July 17, 1934, Plaintiffs' Exhibit No. 41 (q):

"The Board approved David E. Lilienthal's acceptance of President Roosevelt's invitation to serve on the Nationl Power Policy Committee whose function it will be to work out a plan to unify the power resources of the country and to develop a national policy designed to make an abundant supply of power available to the consumer at reasonable rates."

TVA minutes, July 27, 1934, Plaintiffs' Exhibit No. 11:

"Mr. Lilienthal made a statement about the transaction between the Tennessee Public Service Company, the Carolina Power & Light Company and the Tennessee Valley Authority, in which the principal points of negotiation were set out and stating that

he had initiated copies of contracts resulting from these conferences as being acceptable to them and in a form which he would recommend for favorable Board action at this meeting. His statement further contained the following:

> 'Pursuant to my understanding of the views of the Board, in which I heartily concur, no concession was made with respect to the claim of the Company for provision in the contracts assuring such companies that the Tennessee Valley Authority would not enter their territory. At the same time it seemed to me entirely proper for the Board to state to the companies the facts respecting its future expansion in terms of limitations on power supply available, and to indicate the Board's policy with respect to consolidation and development of existing market areas.'

The Board by form of resolution approved the terms and conditions of a certain contract between the Carolina Power and Light Company and the Tennessee Valley Authority, a copy of which contract is attached to and made a part of the minutes as Exhibit 7-27-34e. The Board further approved a statement of fact and policy as contained in a draft of letter directed to C. E. Groesbeck, Chairman of the Board, National Power and Light Company, New York, New York, and authorized and directed the Chairman of the Board to sign and deliver such a letter, copy of which is embodied in these minutes as follows:

"Knoxville, Tennessee
July 27, 1934

Mr. C. E. Groesbeck
Chairman of the Board
National Power and Light Company
New York, New York.

My dear Mr. Groesbeck:

You have inquired as to the plans and policies of the Tennessee Valley Authority with respect to supplying power to communities now served by companies associated with National Power and Light Company operating in the Tennessee Valley region. The Board of Directors authorizes me to reply as follows:

1. You will understand that to the extent that it has power available, the Authority cannot restrict itself in the sale of that power, under the mandatory and directory provisions laid down by Congress. However, the fact is that after allocating all the power generated at Wilson Dam required to serve various areas served or in the process of being served by the Authority, together with a reasonable reservation of power for prospective large-scale industrial customers, the Authority does not have available at the present time any large blocks of firm power which could be sold to municipalities. The areas referred to above are northern Alabama, northeastern Mississippi and northeastern Tennessee, none of which areas (except the latter) are served by companies associated with National Power and Light Company. This situation will be changed upon the completion of Norris or Wheeler Dams.

2. Further, the Board has adopted a policy that, in the coming months, for the best interests of the project, it will seek to develop and consolidate the market area which has thus far been acquired, rather than concentrating, as in the past year, upon acquiring additional market area.

In view of the foregoing facts and this policy, you will see that there is no likelihood that the Tennessee Valley Authority will transmit power to municipalities which lie outside of the aforementioned areas, before the completion of Norris or Wheeler Dams.

Yours very truly,

Tennessee Valley Authority
By
Arthur E. Morgan
Chairman of the Board

A copy of the contract between Carolina Power & Light Company and the Tennessee Valley Authority, attached as Exhibit 7-27-34e to the minutes of this meeting was introduced by plaintiffs as Plaintiffs' Exhibit No. 41-H, which is summarized as follows:

Recites that the Carolina Company entered into a contract with the Tennessee Public Service Company on August 1, 1929, the contract requiring the Public Service Company to purchase its entire power requirements, except as therein specified, from the Carolina Company, and that the Public Service Company had agreed to convey and deliver at a future date, subject to the terms and conditions of a certain contract, a large part of its electric transmission and distribution property to the Tennessee Valley Authority, and that the Authority would become the successor in ownership and operation of said property. It was agreed that the Carolina Company would deliver to Authority during the period beginning with the effective date of the agreement and ending June 4, 1936, such amounts of firm power as Authority may desire to take, not exceeding 40,000 kw of demand. Authority will pay on the basis of quarterly billings for power and energy so taken in accordance with the terms of a schedule attached to the contract. The point of delivery of electric power and energy from the Carolina Company

to the Authority shall be at the North Carolina-Tennessee state line near Carolina Company's Waterville station. The contract further provides for minimum payments and to the extent that energy which has been paid for by Authority under the minimum charges is not used on or before June 4, 1936, such amounts of energy as were not used shall be carried over as a credit to Authority and shall be held available for use by Authority through a twenty month period ending February 4, 1938, but Authority shall not be entitled to carry over a credit of more than 9,660,000 kw for any one quarter. The contract contains provisions that the parties will operate in parallel at the point of delivery until February 4, 1938, or until the energy credit of Authority is exhausted, if such date be earlier. During the term of the agreement, subject to the terms and conditions of the contract between Authority and Public Service Company, Authority will accept from Carolina Company at Waterville, and/or for account of Carolina Company at Newport, electric power and energy to be delivered by Authority less losses, without charge, to Public Service Company at Knoxville, for use of Public Service Company's electric transportation system, and/or to Holston River Electric Company. Attached to the contract is a rate schedule and examples of billing under certain sections of the agreement."

TVA minutes, August 7, 1934, Plaintiffs' Exhibit No. 41 (r):

"The Board considered the proposed budget covering the Authority's operations for the fiscal year ending June 30, 1935, copies of which the board members had previously studied individually. After spending two days analyzing, discussing and revising the various items in the proposed project, the Board unanimously adopted the following Resolution:

The budget referred to above contained under the

caption 'Electricity Program for the Fiscal Year Ending June 30, 1935,' an item of $100,000 entitled 'Sales Promotion—EHFA'; also 'Sales Promotion—Chattanooga Merchants Display'; also 'Sales Promotion Electric Kitchen.' This budget also included the following items: For the Fiscal Year stated $270,490 for engineering and general data and land acquisition (dam) for Hiwassee Dam and included certain supporting statements; set out on pages 4 and 5 thereof. The budget also included similar items for the French Broad dam and included design studies "which will ultimately lead to the final project plans and working drawings from which dams, power houses and other structures will be built." Also like items for Aurora Dam with like supporting statements.

TVA minutes, September 18, 1934, Plaintiffs' Exhibit No. 41 (i):

> "David E. Lilienthal reported to the Board that he had conferred with representatives of the City of Memphis with regard to supplying the City with power. He described the present status of negotiations."

Plaintiffs introduced in evidence (Pl. Ex. No. 19) a copy of a letter presented by special counsel for Tennessee Valley Authority at the hearing before the Federal Power Commission, Washington, D. C., Wednesday, May 23, 1934, in re Application for license, Aurora Landing, Tennessee River. This letter was identified by Dr. Arthur E. Morgan and was also in evidence as part of the minutes of May 20, 1934 in which the Board approved the letter, as follows:

Tennessee Valley Authority
Washington

May 21, 1934

Board of Directors
Arthur E. Morgan, Chairman
Harcourt A. Morgan,
David E. Lilienthal
Federal Power Commission,
Washington, D. C.

Gentlemen:

Our Board has given careful and extended consideration to the Southern Industries and Utilities Company's proposal for building a dam on the lower Tennessee River. We regret that owing to the pressure of official duties we are unable to personally appear before your Commission in this matter.

In support of its objection to the proposal of the applicant, the Tennessee Valley Authority presents the following reasons why the application of this company for license should be rejected:

When Congress passed the Tennessee Valley Act of 1933, it placed on the Tennessee Valley Authority the responsibility of an orderly and proper development of the Tennessee River for power, flood control and navigation. The Authority is carrying out this development as rapidly as is consistent with the public interest. Toward this end, it has well under way the construction of Norris Dam and Wheeler Dam, at an estimated cost of $73,000,000, and it has a corps of engineers making surveys and plans for developing additional storage and run of river projects, including that of the Aurora or lower Tennessee. Development of this site by private enterprise therefore would be contrary to the intention of Congress as expressed in the Tennessee Valley Act, and contrary to the policy and program of the Authority.

The proposal of the applicant that the Federal Government pay the cost of the navigation benefits,

estimated to cost $14,000,000, and that the applicant pay the cost of the power feature, estimated to cost $10,000,000 by the applicant, does not fairly represent the respective interests of the applicant and the Government in the situation. The amount of firm power available at the Aurora site will depend to a large extent on the regulating effect of Norris and other storage reservoirs, which represent a large investment and which will probably more than double the ultimate value of the power possibilities at Aurora. This investment by the Government in storage reservoirs will set the Government's interest in the Aurora project at much more than 60 per cent—perhaps nearer 80 per cent. In as much as the Government will have this large proportion of the investment, there seems to be no good reason for it to give over the ownership or operation of the power feature to a private agency. In addition to the proposed investment of about $35,000,000 in the Norris project, the Tennessee Valley Authority is making plans for early construction of two other storage reservoir projects estimated to cost over $40,000,000, and has made a request for an appropriation towards this construction. Additional future storage projects are contemplated. All of these storage reservoirs will operate to increase the primary power at the run of river plants, including that to be built at Pickwick Landing, for which the Authority is now making plans. The applicant's proposed dam will decrease the power head at Pickwick Landing by 11 feet from that proposed by the Tennessee Valley Authority, making this amount of head unavailable for the primary power afforded at this point by the storage at Norris and other storage reservoirs.

The applicant bases its plans on the assumption that 60 per cent of the cost of the project will be borne by the Federal Government. No such appropriation has been made. Since Congress has already appropriated funds to the Tennessee Valley Authority

for the unified development of the Tennessee River Basin, it becomes questionable whether the applicant can consistently expect an appropriation of Federal funds for the use of a private agency for development of the lower Tennessee.

An essential feature of the program of unified development by the Tennessee Valley Authority is the interconnection of the various power units to permit economical production and operation. Thus at times when most of the power at Aurora is drowned out by high water, this deficiency can be supplied from Wilson and Wheeler dams, and other dams to be built on the lower Tennessee, where the excess flow at such times would provide an abundance of power. A unified system will best permit such coordinated control and operation. Such coordinated control and operation of the Tennessee River system as a single unit is essential to the most economical production and use of hydro-electric power from the river. The rates at which water will be stored and released in the various reservoirs in the branch streams should be determined by the coordinated needs at the power plants on the main river. If any power plant on the main river is left out of this control, the value of the public investment in the upper storage reservoirs would be reduced, and the cost of power would be correspondingly increased.

The Tennessee Valley Authority now has an organization of experienced engineers and designers actually at work on plans and designs; it has an efficient construction force actually engaged in dam construction; it has construction plant and equipment especially designed for dam construction; and it is equipped for the expeditious and economical planning and execution of this kind of construction. The applicant is not so equipped. One of the first steps towards building a dam on the lower Tennessee may be the building of a transmission line from Muscle Shoals for a power

supply during construction, and for an interconnecting line. This would also supply power for other purposes. An actual power supply in the vicinity of the Aurora site would therefore be achieved more quickly under the general program.

The advantages claimed by the applicant for early construction of a dam on the lower Tennessee will obtain most fully if it is constructed and operated by the Tennessee Valley Authority, and in that case the benefits will be more widespread and more complete, and will better serve the public welfare.

For these and other reasons, we request that this application for license be rejected.

Sincerely yours,

Tennessee Valley Authority
(Signed) Arthur E. Morgan
Chairman of the Board

Subscribed and sworn to before me, a Notary Public, District of Columbia, this 22nd day of May, 1934.

(Signed) O. L. Helsley,
Notary Public

Plaintiffs introduced in evidence (Pl. Ex. No. 21) "Report of Arthur E. Morgan to the President on the Activities of the Tennessee Valley Authority" being a letter under date of May 10, 1934, in words and figures as follows:

The President,
The White House, Washington, D. C.

My dear Mr. President:

The Tennessee Valley Authority has been operating for approximately 10 months. In that period rapid progress has been made in the construction of Norris Dam as well as in the other features of the program. The Authority has taken over the operation of the Muscle Shoals power plant, and by construction and

purchase is acquiring a distribution system which should absorb all of the electric power now available at that plant. Arrangements are now being made for the sale of this power, including the development of rural electrification. A corporation known as the "Electric Home and Farm Authority" has been organized to stimulate the use of electric appliances and the consumption of electric power.

Last October you asked the authority to start construction on Joe Wheeler Dam as a means of providing additional employment. Work was begun immediately. In view of the rapid development of the power program, the need for this additional power may materialize sooner than was expected.

In the past our water resources developments have nearly been in separate, uncoordinated units. The development and utilization of the water resources of the Tennessee River system in accordance with a single unified plan by a single public authority, as contemplated in the Tennessee Valley Authority Act of 1933, makes possible great increase in use and very great economics of expenditure. I therefore am pleased to report the beginning of such development and control of the Tennessee River and its tributaries for navigation, flood control, power development, and other uses, except for the operation of navigation facilities, under the administration of the Tennessee Valley Authority, and the unified development of that river system by this Government agency as a national policy. Provision should be made at present for continuing the construction of the Joe Wheeler Dam, and for beginning work on about four other dams on the Tennessee River or its branches.

The power program of the Authority, in promoting the wider and better use of electricity for the Tennessee Valley and for the Nation, its program of encouraging rural electrification, and the design and distribution of low-cost electrical appliances, is a stimulus to the manufacturer of appliances, to both publicly

owned and privately owned utilities, and to the larger and better use of electric power by the whole people. That program should be continued and extended.

The Tennessee Valley Authority is utilizing the nitrate properties at Muscle Shoals and is adding materially to the plant in the conduct of experiments seeking processes in the cheaper production and distribution of plant foods. This is very necessary in the rehabilitation of the land and in a permanent program of land ownership and rural development. In the preparation of phosphates, the program may require that part of the manufacturing process should be at the phosphate beds, either within or without the Tennessee Valley. The continuation of this research, together with demonstration of possible economics in actual production, distribution, and use on a commercial scale, is desirable.

Of the total area within the Tennessee River system, which has at one time been in cultivation, perhaps a quarter has been destroyed by soil erosion, and that destructive process is now more active than ever. This soil erosion is also filling up and destroying the reservoirs of water-power systems. Unless it is checked, this great region and much greater areas in the southern uplands will slip backward in material well-being. A program of land use planning has been instituted to determine the best use of the land, and the best manner of preventing its further destruction.

The forests of the region have been steadily destroyed by wasteful lumbering, by the common habit of setting fire to the woods each winter, and by the habit of clearing steep hillsides for the four or five corn crops they will produce before the soil is washed away. The Tennessee Valley Authority has undertaken a program of devising and putting into operation a forest policy appropriate to this region, in cooperation with the United States Forest Service and the several States of the Tennessee Valley area, and in harmony with regional planning of the Federal Government.

In the Tennessee Valley area there are many more people engaged in agriculture than are needed in that pursuit. As a part of the program of social and economic planning, studies and demonstrations are being undertaken for readjusting this population, with the encouragement of local industries, especially for home consumption, and resettlement of families displaced by the establishment of national forests, the construction of reservoirs, or by other causes. Studies are under way of economies and improvements in industrial and community organization, including cooperatives, in the use of the natural resources of the region, and of the relation of agriculture to industry, with appropriate experiments and demonstrations. One of the aims is to prevent a recurrence of the congestion of people from those rural areas in our industrial centers.

The transportation system of the region, by rail, highway, water, and air, has never been coordinated as to service or rates. A regional study is planned of the transportation rates, facilities, and needs of the Tennessee Valley, in cooperation with other Federal agencies, and the local agencies as a guide to a transportation policy for this region and as an example to other regions.

In cooperation with the educational, health, highway, public safety, and other authorities of the Federal Government, and of the States of the Tennessee Valley area, the Authority has undertaken to promote common understanding and common effort to work out solutions to the common problems of the region. These efforts to bring about cooperation should continue.

If these and similar problems of social and economic organization can be successfully solved in this limited region, the methods and results developed will be of great value to the rest of the United States.

Respectfully,

Arthur E. Morgan
Chairman of the Board

At this point the plaintiffs offered in evidence the following specified answers to the interrogatories propounded by the plaintiffs to the defendant Tennessee Valley Authority. At the time that these interrogatories were propounded the defendant, in compliance with the equity rules, filed written objections separately and severally to each of the interrogatories, the answers to which were offered in evidence. Those objections were based upon the ground that the interrogatories called for irrelevant and immaterial evidence. The objections were overruled by the Court and the defendant duly and legally reserved an exception.

At the time said answers were offered in evidence the defendants renewed their objections separately and severally to each of the answers so offered in evidence, and each of said objections was overruled by the Court. The defendants duly and legally reserved an exception to each of said rulings. The defendants specifically objected separately and severally to the admission in evidence of each and every one of the press releases contained in the answer to interrogatory No. 2-a, both on the ground that said press releases were irrelevant and immaterial and upon the ground that they were not binding upon the defendant Tennessee Valley Authority. Each of these separate objections was overruled by the Court and the defendants duly and legally reserved an exception to each of said rulings. At the same time the defendants objected to the admission in evidence of the specified answers upon the ground that only part of the answers to the interrogatories were being offered and that the plaintiffs had no right to offer a part of the answers without offering all. This objection was overruled, to which ruling the defendants reserved an exception. Later in the course of the trial the defendants offered in evidence on their own be-

half the answers to the interrogatories which had not been offered by the plaintiff. The objection interposed by the plaintiffs to this offer was sustained by the Court, to which ruling the defendants reserved an exception.

The following is a summary of the information supplied by the Tennessee Valley Authority in answer to the specified interrogatories, introduced in evidence:

2-a. In answer to this interrogatory, which requested the production of public releases made by Tennessee Valley Authority, the Tennessee Valley Authority produced as relating to the allegations of the bill of complaint and there were offered in evidence approximately ninety public releases, multigraphed for distribution and bearing generally the caption "Tennessee Valley Authority, New Sprankle Building, Knoxville, Tennessee (or Washington D. C.), Press Release," with instructions to the press as to the time of release. These releases consisted in general of statements by Tennessee Valley Authority or public addresses by the Board members or executive staff.

These releases included all of the statements or excerpts set out in Exhibits Nos. 3, 4, 7, 9 and 11 to the Bill of Complaint.

The successive releases contained a great deal of repetition of former addresses, substantially all of the comment of one address being often repeated in subsequent releases.

The releases thus produced and offered in evidence are summarized as follows:

June 30, 1933. This was a press release announcing that on July 1 the Government property at Muscle Shoals would pass to the control of the TVA, and contained the following statements as to the plans of the Authority:

> "The Tennessee Valley Authority, charged with the utilization of Muscle Shoals in connection with the

economic and social development of the Tennessee River basin, is not formulating any policies until it knows where it stands with regard to national and state legislation and its own relation to the federal structure, what it is taking over at Muscle Shoals and elsewhere in connection with its purpose, and until it can obtain scientific and other data which will help shape its course. * * *

"Preliminary studies in the power field may require six months. Meanwhile, the Authority will be represented before the Federal Power Commission in all proceedings with respect to leasing power sites in that area.

"The Authority intends to use Muscle Shoals as a "yardstick" to determine the relative cost of public and private power operations based on a fair and equable method of cost accounting."

July 18, 1933. A New National Conservation Policy—The Tennessee Valley Project — Remarks of David E. Lilienthal, Director and General Counsel, Tennessee Valley Authority. Before the International Congress of Women, Palmer House, Chicago, Tuesday afternoon, July 18, 1933.

This release contained statements as to the plan and scope of the TVA, introduced as follows:

"Seated before an open fire in his home in Warm Springs last February, Franklin D. Roosevelt formulated and expressed a new national policy for the protection and development of the natural resources of our country. In one of his first informal conversations with the people, he told newspaper men of his plan for the development of the Tennessee River Valley—a plan which marks the beginning of a new period in American economic and political history.

"About a month after the President took office, he sent to Congress a message, accompanied by what has been called the Norris Bill, which gave legal expres-

sion to the plan which he had unfolded at Warm Springs.

"The Government's great wartime electric generating station at Muscle Shoals was to be put to the use of the people of that area. But that power station, the President said, is 'But a small part of the potential public usefulness of the entire Tennessee River. Such use, if envisioned in its entirety, transcends mere power development; it enters the wide fields of flood control, soil erosion, afforestation, elimination from agricultural use of marginal lands, and distribution of and diversification of industry.' 'In short,' the President continued, 'this power development of war days leads logically to national planning for a complete river watershed, involving many states and the future lives and welfare of millions. It touches and gives life to all forms of human concern.'

'And then follow these eloquent and significant words: 'Many hard lessons have taught us the human waste that results from lack of planning. Here and there a few wise cities and counties have looked ahead and planned. But our nation has 'just grown.' It is time to extend planning to a wider field,—in this instance comprehending in one great project many states directly concerned with the basin of one of our greatest rivers. This is in a true sense a return to the spirit and vision of the pioneer.' Two months ago today the President signed the Norris Bill, creating an administrative agency, the Tennessee Valley Authority to carry out the ends of the law."

After referring to the soil as the most important natural resource, the damages of erosion, and its avoidance by proper land planning, the power plans and functions of the Authority are discussed, including the following:

"In the President's plan for the development of the Tennessee Valley, there is another principal natural resource—electric power. On the Tennessee River is

a mile-wide Wilson Dam at Muscle Shoals, Alabama, built, as everyone recalls, during war-time for the production of nitrates and fertilizers needed for the war. For the past fifteen years and more it has been little used, and has been the storm center of many Congressional debates. The President saw that here was a natural resource which should be developed as a necessary and integral part of the development of the other natural resources of this Valley Empire.

"The Roosevelt-Norris proposal, enacted into law, directs the operation of this power plant and the distribution of the electricity there produced. It further provides for the construction of other dams by the Authority in the Valley, and the generation and distribution of power from such additional dams. The Valley Authority is directed to make experimentations and studies to develop this natural resource of electric power as a means of taking from the backs of men and women in the Valley some of their ancient and arduous burdens . . .

"The power development at Muscle Shoals and that under way on the Clinch River in Tennessee is an inseparable part of the other objectives which the President had in mind,—particularly the control of floods, and the protection of the soil from destructive erosion. For these great dams act as reservoirs, whereby flood waters may be controlled and destructive floods eliminated or minimized. The value of this is measurable in dollars, for the average annual flood damage on the Tennessee River has been placed at $1,780,000. At Chattanooga alone it has been estimated that there is flood damage of about $690,000 each year.

"There is this further inter-relation between flood control, the development of power resources, and the conservation of the soil. If these reservoirs built to prevent destructive floods and to produce electricity are not to be themselves destroyed, the fight against soil erosion must go forward; otherwise, the soil

washed into the River will be in a relatively short number of years appreciably filled up, and to that extent destroy these reservoirs themselves. For example: The Roosevelt Irrigation Dam in Arizona, while only seventeen years old, has already lost one-sixth of its capacity, by reason of the filling up with silt,—and this is in a region in which the rainfall is not great, although torrential.

"The development of these two natural resources of power and of soil, therefore, dove-tail together into a single policy of development of resources,—the power dam serving to control floods, the soil erosion measure serving to protect the life of the power dam, and the power resources aiding in the development of all the human and material resources of the Valley.

"A significant fact about the development of hydro-electric power is that it furnishes an opportunity to pay back to the Government of the United States, and, therefore, to the taxpayers, the tremendous sums of money which they must expend through their Government to conserve, develop and control their basic natural resources. We have it on the authority of Dr. Elwood Mead, Chief of the Reclamation Service, that the hydro-electric works which have been built in the West as an incident to the construction of irrigation projects, have been a source of income, which he states will pay all the expenses of such reclamation projects and even permit of the retirement of the Government's capital investment. The same principle, of retiring the Government's investment through revenues from the sale of power, may be adopted by the Tennessee Valley Authority . . .

"Now, as to the method of giving effect to this chart for the Valley of the Tennessee: The President recommended and the Congress has provided for the creation, not of a Government bureau, but of an independent and separate governmental corporation called the Tennessee Valley Authority. Such a corporation came into

existence four weeks ago. All of its powers and functions are vested in a Board of Directors and three men appointed by the President, with the advice and consent of the Senate. The law gives to these directors powers of the greatest breadth and flexibility,—powers almost unheard of in ordinary governmental departments. The directors are charged with full responsibility, and then told to proceed as their informed judgment directs . . .

"The directors of the Tennessee Valley Authority are determined to keep this governmental corporation free from the rigidity and clumsiness which too often impair governmental effectiveness. The President has said that the corporation is to have a flexibility of a private business corporation. No other conditions will permit of the accomplishment of his objectives. • • •

"The Tennessee Valley Authority is the first effort by a Government to put into effect a plan for an entire region."

July 24, 1933. This release announces that TVA "has sent its consulting electrical engineer into the Muscle Shoals area for the two-fold purpose of investigating the power field and checking up the readiness of the Wilson Dam for commercial light and power service." It contains the following statements:

"The Authority has received tentative power applications from about 25 municipalities in Alabama, Kentucky, Mississippi and Tennessee, and inquiries involving others. Some of these places have municipal plants; others are served by private lines, and several have no electric service whatever.

"There are two avenues open for the Authority to afford power service. The first is to bargain with existing private lines for service on a rate schedule to be established. The second is to build its own

lines, serving groups of municipalities in the order of their application insofar as possible.'

July 31, 1933. This announced plans for the construction of the tie transmission line between Muscle Shoals and the proposed dam at Cove Creek. It also stated that the directors had authorized immediate action to provide for power for Florence, Sheffield, and Tuscumbia, Alabama, negotiations to be undertaken at once by Mr. Evans, chief electrical engineer for TVA. It is also stated that application for power service had been made by officials of the city of Knoxville, Tennessee.

August 10, 1933. This release describes the allocation of duties to the three directors, briefly summarized as follows:

A. E. Morgan, Chairman: Dam construction and engineering; land and regional planning; forestry and control of soil erosion.

H. A. Morgan: Agriculture, construction of furnaces for phosphates, etc.; manufacture and sale of fertilizers; plans for a cement plant.

David E. Lilienthal: Legal department; operation of electric plants at Muscle Shoals and distribution of power; construction and operation of transmission lines.

August 15, 1933. Speech of Dr. Arthur E. Morgan, broadcast over a nation-wide hook-up of the National Broadcasting Company. This speech was devoted entirely to a discussion of TVA as an agency for general social and economic planning. In his introductory remarks he stated that public ownership and operation of Muscle Shoals,

". . . may make possible the carrying out of one of

President Roosevelt's policies—that of providing a publicly owned and operated power system as 'a yardstick' by which to measure the relative economy and efficiency of public and private ownership and operation."

August 22, 1933. This release is set out in full:

"The Tennessee Valley Authority will oppose application by Southern Industries and Utilities, Inc., for permission to construct the Aurora dam and power plant on the lower Tennessee River.

"W. E. Waldo, president of the utility company which has been working on the site under a preliminary permit, has requested the Federal Power Commission for a 50-year permit to enable his firm to go ahead with its development.

"This is the first test of the Authority's opposition to further exploitation of the Valley's waterpower and other resources until a definite conservation policy is worked out. The Authority is of the opinion that Congress intended that the former, being charged with the public's interests, should have exclusive jurisdiction in all future developments on the Tennessee river and its tributaries."

August 31, 1933. Address of Dr. Arthur E. Morgan before the Kiwanis Club, Knoxville, Tennessee. The following statements, inter alia, are made as to the plan and scope of the TVA:

"As the Tennessee Valley Law finally emerged from Congress it represented two kinds of purposes and aims. One kind was the definite purposes and aims to do specific things. One example of this was to make available to the public the power from the Wilson Dam at Muscle Shoals. Another purpose was to increase the steadiness and value of that power by building this large dam near your own City for the storage

of water. Still another purpose was to connect those two with a transmission line so that the power could be regulated between them, and would be available along the way. Then, there was another very specific purpose in the Act. That is the exploration of the possibilities for the development of fertilizer, and perhaps, at the option of the Board, the manufacture of fertilizer . . .

"I have spoken of these specific elements of the Tennessee Valley Act, and now I want to speak of the more important elements.

"The Tennessee Valley Authority is not primarily a dam building job, a fertilizer job or power transmission job. When I first went to see President Roosevelt, he talked about an hour about the Tennessee Valley Authority, and there was scarcely a mention of power or fertilizer. He talked chiefly about a designed and planned social and economic order. That was what was first in his mind. At the time I did not realize how far flung his ideas were, because his Recovery Program had not been fully revealed. The country as a whole didn't realize how great a change in private and national life was to be made.

"I have spent possibly ten hours with him since then talking over the Tennessee Valley Authority from time to time, and I may say that to him this is not a part of the emergency program. * * *

"Professor R. G. Tugwell of the Department of Agriculture expresses himself from time to time on the President's program. Just recently he made an outline of the Tennessee Valley work. There is this statement in his outline, which expresses the President's views.

> 'This work of his carries more significance for the future than any other single attempt of the administration to make life better for all of us. It is in no sense emergency as so many other ac-

tions have necessarily been. It did not have to be done to stave off financial panic, to avert war, or to relieve distress. It is a deliberate turning toward the future, a commitment to an ideal. Its success can depopulate cities, destroy a thousand entrenched privileges, invalidate a whole tradition of single-hearted self-interest.'

That sums up what this undertaking means to the President. This great project might have been located in any one of several parts of our country. It is not a pork barrel appropriation for the Tennessee region. It is part of the major program to try to find a way out of industrial chaos into a designed social and industrial order. If we do not see it that way, we do not see the heart of the Tennessee Valley program." * * *

"To some extent such a program (social planning) can be brought about by National legislation. For instance, there is this power program of the Tennessee Valley. The President has wished that somewhere in America there could be a case of public ownership.

"We mean then by social and economic planning the control of these things (national resources, including water power) for the benefit of mankind."

September, 1933. "Planning in the Tennessee Valley," by Arthur E. Morgan. This is a reprint from an article appearing in the Current History Magazine for the month of September, 1933. This article discusses the variety of provisions in the TVA Act, quotes the President's message to Congress of April 10, 1933, and contains the following statements as to the scope and program of the TVA project:

"If the act is at fault in the uneven emphasis given to various subjects, that can be corrected by the type of organization set up. The Tennessee Valley Au-

thority is a corporation, administered by a board of three directors who report directly to the President, and are chiefly subject to his control. Under his direction it is their function to bring design and proportion into the affairs of the corporation and to insure that a smoothly operating and well-matured program shall emerge to express the dominant purpose of the act.

"What ought that program to be? President Roosevelt's idea, as embodied in the law, is that in the watershed of the Tennessee River there shall be attempted the first deliberate effort, on a large scale, to inspire systematic and balanced development of the social and economic life of a part of our country. * * *

"For other reasons design and planning should be introduced into the use of water power. While the Tennessee Valley Authority Bill was in Congress, leaders of the private power companies appeared to protest most vigorously against the production of more water power. Yet, no sooner had the Tennessee Valley Authority been organized under the new law than applications began to come in for the right to develop additional water power on a large scale. Some control seems necessary to insure that the utilization of water power takes place in a systematic manner according to well-designed public policy. * * *

"How can the Tennessee Valley Authority help to achieve its purposes? The progressive generation of electric power and its distribution to the rural communities that need it is one method set forth in the law."

September 14, 1933. This release was an announcement of rates to be charged by TVA for electricity, containing a somewhat detailed explanation thereof. Among other things the release stated:

"Any municipality, in the area we plan to serve initially, which owns its distribution system, assuming half-time use, may secure wholesale power from the Authority at an average cost to it of seven mills a kilowatt hour.

"The power project is designed to be strictly self-supporting and self-liquidating."

Attached to this release was a copy of "The Power Policy of the Tennessee Valley Authority," already set out in this record as Exhibit No. 3 to the Bill of Complaint. (R., p. 108).

September 15, 1933. This was a release of a statement by Director Lilienthal explaining at some length the cost computations upon which the announced rate schedules of the Authority were based. It is pointed out that there had "not been time to make a determination of the 'present value' of the property at Muscle Shoals, as required by Congress, or to allocate that value, as the law requires, between navigation, flood control, fertilizer, national defense, and power. An estimated property figure for the hydro-electric property has been used." It is stated that:

"The wholesale electric rates which the Authority announced yesterday, while strikingly low, cover all cost of furnishing service, and are based on the Board's policy that Muscle Shoals shall be entirely self-supporting, and 'bankable'; in other words, a business enterprise. The computations are based on the best available data and weeks of close study and analysis, and have been subjected to the criticism of recognized rate experts. The figures show that all costs of service are included, and, in addition, provision has been made for items of cost not actually incurred, such as taxes and interest, but which were nevertheless included in order to make fair comparison with privately operated utilities, for 'yardstick' purposes . . ."

September 22, 1933. This is a release stating that the construction of Joe Wheeler Dam is approved by the Authority "as a relief measure providing the cost is met with Public Works money," and sets out the telegram sent by Chairman Morgan to the Secretary of the Interior and the Senators from Alabama, which is set out in the excerpt from the minutes of the Board dated Sept. 21, 1933, in evidence as Plaintiffs' Exhibit 41-b (R., p. 535).

September 28, 1933. Address of David E. Lilienthal, Director of the Tennessee Valley Authority, before the Rotary Club of Chattanooga, Sept. 28, 1933. This speech is a general discussion of the plans, purposes and objectives of TVA, and contains the following statements relating thereto:

> "The Tennessee Valley Authority has been set up as an instrument of the people, to promote and to cooperate in a plan for the continued development of the valley in which we live. The program of the Authority is of two kinds. There is the program for today; certain definite work which the Authority is engaged in executing, of importance today and in the weeks and months which are immediately ahead. And then, there is the long-range program—the laying of plans for future economic and social objectives—plans which may take years to come to fruition, but which will have far reaching consequences on the future course of our national life. * * *
>
> "The task assigned to the Tennessee Valley Authority as outlined by the President and included in the Authority Act is one of regional planning for both the present and the future. It is not primarily an emergency relief measure.
>
> "The Tennessee Valley Authority power program is not a taxpayers' subsidy. It is a business undertaking.
>
> "You are business men. Many of you are manufac-

turers just as we are. We are both obligated to operate our businesses on a sound basis. As a manufacturer, you would consider as most unsound, any suggestion that you double the capacity of your plant, even if your bank would advance the money, unless you were pretty sure that you would be able to develop a market for the increased product by the time the plant addition was completed. Rightly so, you would be most critical of us, were we to do the same thing.

"We would be doing just that, if we authorized or approved putting on the market additional blocks of power from these proposed new dams, before the market of the area could absorb the power of Muscle Shoals and Norris Dams. That we must not do, for it would violate the expressed mandate of Congress and of the President to operate the present and future power facilities on a self-supporting basis. * * *

"The Board of Directors of the Authority have set forth as conditions of approval of the construction of Dam No. 3:

1st. Unemployment relief.

2nd. Unified control of the development of the water power resources as a single system with a single ownership and control.

3rd. Funds supplied by the Public Works Administration.

4th. The additional investment will not be carried as a power investment of the Authority, but will be treated as any other Public Works enterprise.

5th. When the dam becomes useful for power produced by the Authority by reason of the market situation, **but not until then**, the Authority will be charged with the investment and the fixed charges. * * *

"The public must protect its interests in so vital a

force (electricity). There are various expedients to accomplish this result. One is by commission regulation. It is pretty well recognized that regulation has not been entirely adequate to protect the public interest, and so to supplement regulation, Congress has provided for a measure of public operation on a limited scale. This public operation is to serve as a yardstick by which to measure the fairness of electric rates. It has an additional function. It is a reminder that electricity is a public service, and that unless it is exercised by private corporations with fairness, with efficiency, without financial jugglery and with a due sense of responsibility to the paramount public interests involved, that the public, at any time, may itself assume the function of providing itself with this necessity of community life.

"This power program is a constructive measure. Congress has not declared a national policy against the private ownership and operation of public utilities. It has merely provided for an additional measure of public protection against unreasonable or arbitrary conduct of a business which, by its very nature, is a matter of fundamental public concern.

"What the Authority is trying to do in its power program is to set up an area for power operations which will be on a comparable basis with typical private operations. To set up such a 'yardstick' the Authority obviously must undertake to serve an area which is large enough and sufficiently concentrated with enough population density and with a sufficiently diversified industrial, commercial and residential load to provide a fair test. As business men it is apparent to you that if the Authority is only to serve the parts of a territory which a private utility has not chosen to serve, or is to serve only sparsely populated areas, the result of our operations cannot possibly be set up as a measuring rod. The Authority will necessarily have to undertake to serve an area of concentrated

industrial territory, good farms and favorable distribution possibilities. It will, therefore, be necessary to include several cities of fair size in the area. The people of Knoxville and Birmingham are soon to vote on the acquisition of their distributing systems. We are now constructing a tie line between Muscle Shoals and Cove Creek, and we propose to enter into contracts with municipalities and other agencies desiring this service in the territory between those two points.

"Obtaining this fair market in which to sell power, seems to be in sight, in view of the interest shown by about one hundred fifty municipalities. * * *

"The relation of this planning agency to the people of the valley is the starting point in this whole enterprise and unless that relationship is soundly conceived, the whole project is doomed before it starts. It seems to me fundamental that the objectives of the President and the hope and plan of the Tennessee Valley Authority can only be carried out if the people of the valley themselves actively participate in the program. * * *

"As a new neighbor of yours, I appeal to you not to permit this opportunity for national leadership to fail through any lack of your support. I appeal to you to refuse to listen to the voices of those of little vision and of selfish purpose. This program will succeed only if you of the Valley treat this as a national project. I appeal to you to throw your energies and devotion into this national program which can mean so much to you and to your children."

October 17, 1933. Address of David E. Lilienthal, Director and General Counsel, Tennessee Valley Authority, before the Rotary Club of Memphis, Oct. 17, 1933. This speech opens with the identical language above quoted (R., p. 592) from the speech made before the International Congress of Women, and contains statements con-

cerning the plans and program of TVA substantially similar to the other public addresses of Mr. Lilienthal, and included the following:

"The Tennessee Valley Authority has been set up as an instrument of the people, to promote and to cooperate in a plan for the continued development of this entire region in which we live. The program of the Authority is of two kinds. There is the program for today; certain definite work which the Authority is engaged in executing, of importance today and in the weeks and months which are immediately ahead. And then, there is the long-range program—the laying of plans for the future—plans which may take years to come to full fruition, but which have far-reaching consequences on the course of our national life. * * *

"The power program of the Authority is an important part of its present plans and of the long-range regional program. The starting point in any discussion of this power policy and program must be this: That the distribution of electricity is not like the usual private business, but, in the language of the ancient common law, is a business "affected with a public interest." By its very nature, the business of generation and distribution of power is a public business, because in our present day community life we are all so utterly dependent upon that service. We need constantly to revert to this fundamental principle of the public character of the electric business. * * *

"I suppose it is obvious that all computations concerning costs are based on the expectation that the Authority will sell the power which it has available. Muscle Shoals was turned over to us as a going plant, but not as a going concern with customers. Obviously, if we sell only one kilowatt hour, our cost will be hundreds of thousands of dollars a kilowatt

hour, rather than a few mills. If the power is not utilized in volume, no one will receive the great potential benefits of the wealth of the Tennessee River. It is axiomatic in the electric business that an increase in use decreases the cost per unit of output. Accordingly, we look forward to a maximum use of our facilities. * * *

"This is not the first time that the execution of a great national purpose has adversely affected private interests. Many examples will come to your mind. There was a time many years ago, for example, when the educational system of the country was in private hands. The public policy which led to the establishment of public schools in competition with private schools must have seemed a serious blow to those people who had their money invested in private schools. As we now know, the fears of the private school owners were exaggerated. The privately-owned school has shared in the steady growth of our nation's educational structure, and today continues to occupy a distinctive place. But will any fair minded person argue that the policy of public education is wrong on the ground, and on the ground alone, that such a policy threatened loss to the owners of private schools? The problem implicit in the Tennessee Valley Authority Act is essentially the same. Once the representatives of the people and their President have determined that the national welfare demands the setting up of an example of public power operation in this area, is it the part of loyal Americans to seek to destroy and to thwart that policy merely because they fear that it may adversely affect their private holdings? * * *

"You are probably aware that there is a movement on foot to organize the security holders of the country to put a stop to this whole project. Among the utility holders are thousands of people of modest means, as well as institutional investors. An effort to

organize security holders into an army to do battle with the consumers of electricity raises a serious question which should be faced with frankness.

"To you who are investors in public utility securities, I want to speak very frankly: After long deliberation, a national policy has been determined upon whereby a limited example of public operation of the power business is to be set up and to be given a chance to show what it can do. This is now the nation's policy. That national policy should have a fair chance. The Authority is ready to sit down with the leaders in the electric industry and discuss their respective problems as business men, and as men who above all other considerations are loyal to their government and to their President at a time of grave crisis. I appeal to the electrical industry on behalf of the investors to whom, it is responsible, to show a measure of business leadership which will make the country forget the disgrace which was cast on the industry during the past decade. * * *

"Here is an opportunity for industry and for government to display qualities of statesmanship. The Authority must carry out the national policy entrusted to it. It must acquire a market for its power. It must work toward a wider use of electricity in the home, the farm and the factory. All of these objectives can be reached without the predicted calamities to the industry and its bona fide investors. If the Authority succeeds in its plans to develop new uses for electricity, and by low rates and wide distribution of low cost appliances can increase existing uses, private utilities and the electric manufacturers can both share in the benefits. If in acquiring a market we can use existing facilities of private utilities, of course we will pay a fair price for them. By contracts with private utilities for interchange of power, economies and service betterment can be effected in which the utilities will derive benefits.

I could cite other concrete instances to the same point. If there is a genuine desire to work with this project and not to obstruct or destroy it, ways and means can and will be found for the electrical industry and government to work without friction in expanding the use of electrical energy for the benefit of all of our people. * * *

"There is not time to set out the concrete measures which are in process of development. Navigation and other transportation problems are one. Protection of the soil against destruction through erosion is another. Development of power resources is another. Stimulation of forms of industry suited to this area is another. And so on. In general the plan contemplates a carefully formulated development of all the natural resources of the Valley, to the end that these resources may bring the greatest measure of happiness and security to the people of this region and to their children and their children's children."

October 20, 1933.

What Difference Will the Tennessee Valley Authority Make?

Talk at Chamber of Commerce Meeting at Asheville, North Carolina, October 20, 1933,

by

Arthur E. Morgan, Chairman of the Board, Tennessee Valley Authority.

This speech is largely devoted to the function and program of TVA with reference to economic and regional planning, and includes the following statements:

"The Tennessee Valley Authority has two sources of origin. One of these is a series of events center-

ing about Muscle Shoals. The other is a growing feeling through the years in the mind of our President, and in the minds of many other persons, that the haphazard, unregulated and unplanned social and economic life of the past is not a good foundation for general prosperity and wellbeing, and that this unplanned and unregulated condition should give way to an economic program based on forethought and planning, with clear recognition of the right of all well-meaning persons to a chance to work out their lives without exploitation or unnecessary obstacle. The Tennessee Valley Authority does not represent one of these purposes alone, but all of them together. Its success depends on our keeping all these purposes in view, and in keeping them in good relation and proportion to each other. It would be a mistake for us to give so much attention to any that the others drop out of sight.

"Wilson Dam was undertaken as a war measure. Its completion after the war was opposed by those who insisted that the generation and distribution of power should be solely a private industry. Finally Wilson Dam was completed, and then it lay almost idle for six years while a contest was fought out in Congress between the advocates of public and those of private generation and distribution of power. Twice Congress passed bills for the public operation of the Wilson Dam power plant, and each time the bill was vetoed by the President. Finally President Franklin Roosevelt proposed a general program of public generation and transmission of power as a part of the Tennessee Valley Authority program. One of his aims was to prepare a 'yard stick' of public ownership. In the division of work among the directors, that of transmitting and selling power was assigned to Mr. David Lilienthal. * * *

"The Wilson Dam power plant at Muscle Shoals is what is called a 'run of the river' plant. That

is, there is very little storage of water in the lake above the dam in the Tennessee River. When the Tennessee River is high during the winter there is an abundance of water, and therefore an abundance of power. During the driest summer seasons the flow is small and therefore only a relatively small amount of power can be developed. To correct this wide variation of flow the Tennessee Valley Authority act provides for the construction of the Norris Dam and power plant on the Clinch River more than 200 miles upstream from Muscle Shoals. The Norris Dam, formerly called the Cove Creek Dam, will create a great storage reservoir, great enough to store almost a year's rainfall. By operating the Norris Dam and power plant and the Wilson Dam and power plant as a single system, a very great increase of power is possible. During the winter, when the Tennessee River is high and power is abundant at Muscle Shoals, the Norris Dam plant will be shut down and the water will be stored in the reservoir. During the summer when the Tennessee River is low and power is scarce, the Norris Dam power plant will be operated. The water used for generating power at the Norris Dam will then flow down to the Wilson Dam where it will be used again to develop more power. The two dams operated as a single system will generate about six times as much dependable power as either one alone. A transmission line is provided for in the law to connect these two plants and to regulate the supply of power between them. * * *

"To end with generalities and to get down to cases, I will describe some of the more glaring wastes from which we suffer, and which may be eliminated by social and economic planning. Let us begin with water power. Here in North Carolina are some of the main tributaries of the Tennessee River with excellent power possibilities, especially for extensive storage reservoirs. Plans have been made by private

companies for the development of certain of these power projects for operating private industries.

"Further down on the Tennessee River are other power projects. I spoke of the Wilson Dam project as a 'run of the river' power plant. That is, it develops a large amount of power in high water and a small amount in low water. Now the management of a power plant up here in western North Carolina has a great deal to do with the nature of a plant lower down. If the plant on the upper branches, with a large storage reservoir is run for its own industry alone, then it must use its water somewhat uniformly throughout the year. That which is let down during the summer helps the power plants down the river, where summer power is scarce. But the water let out of the upper reservoir during the high water season of winter and spring is wasted below, for there is already more water in the lower river than is needed.

"If the up-river plants and down-river plants are connected with transmission lines and are operated as a single system, a different result can be achieved. During high water in the winter the lower plants, where there is no storage, will be run to full capacity. The upper plants that have a large amount of storage will shut down and will save their water, and will use electricity from the down-river plants. Then during low water in summer, when the down-river plants do not have enough water, the up-river plants will draw on their storage reservoirs and will produce power in larger quantities when it is most needed. Not only that, but the water which passes through the up-river plants must pass through every power plant on the Tennessee River all the way down to the Ohio River, and produces power at each one at the time of year when it is needed most.

"By operating the entire Tennessee River and its branches as one organized system under government

control, the value of the power developed would probably be at least twice as great as though the various developments should be operated independently. The exchange of power among private companies does not eliminate these wastes, though it may reduce them. Here is a practical case of economic planning which is possible of achievement . . .

"We need economic planning. We need kilowatts of electric power and tons of potash, phosphates and ammonia. We need forest policy and production policy. But we need something more than all these. We need the desire and the will that this productiveness shall not be segregated so that a few compete in social ostentation while the many strive hopelessly against fate. We need a greater sharing. . . .

"Now, in closing, how does this directly affect North Carolina?

"Personally I should hope that in the spreading system of power plants North Carolina would soon be included, as soon as demand for power may justify an increase of supply. Your cooperation in fertilizer development will be welcomed. Some of your unemployed will be used on present construction. In steps for long-range economic planning, in the development of cooperatives, in the growth of a forest policy, we shall look to North Carolina for leadership and for cooperation. . . .

"The Tennessee Valley Authority is but a few months old. Its directors are not sure of their way. We hope that this may be a project in which patience and good will and keen interest and hard work may bring a realization of some of the hopes expressed in the President's message."

November 7, 1933.

Address of David E. Lilienthal, Director and General Counsel, Tennessee Valley Authority, before Joint Meeting Rotary Club, Chamber of Commerce and Exchange Club of Nashville, Tenn., November 7, 1933.

This speech is a general discussion of the plans, purposes and objectives of TVA, and contains the following statements relating thereto:

> "Now this is what had been going on throughout the United States. Regulation by commission had in many states proved ineffectual. In some states it was perfectly obvious that the regulators were not regulating the utilities, but in effect, the utilities were regulating the regulators. In other states, the regulatory commissions were doing an honest and sincere job, but were hampered by the interminable procedure of regulation. And so, to supplement regulation by commissions, Congress passed the Tennessee Valley Authority Act. This Act is not an assault upon private ownership and management of public utilities. But it is a determined attack on private mismanagement of the public business of power at the expense of the people back home—consumers and investors alike.
>
> "The deepest resentment over the mis-management of the power business in the past ten years has been among the ranks of the small investor. Much of the capital by which the great financial giants have carried on their operations has come from the savings of men and women of modest means. The small investor was assured by the stock salesman that public regulation would protect him against wild-cat financial operations. The stock salesman assured him that the public utility industry was in the hands of men who regarded themselves, in effect, as trustees

of a great public business. And when the small investor learned the real facts, his resentment has been greater than that of the consumer. It was with such a background that Congress passed the Tennessee Valley Authority Act and set up which provides a measure of public operation of the power business.

"This public operation is to serve as a 'yardstick' by which to measure the fairness of electric rates. It has an additional function. It is a reminder that electricity performs a public service. It is a reminder that unless that business is carried on by private corporations with fairness, without financial jugglery and with a due sense of responsibility to the paramount public interest, that the public, at any time may assume the function of providing itself with this necessity of community life.

"What the Tennessee Valley Authority is required to do in its power program is to set up an area for power operations. That area is to be on a comparable basis with typical private operations. To set up such a 'yardstick' the Authority obviously must undertake to serve an area which is large enough and sufficiently concentrated, and with an adequately diversified commercial, industrial and residential load to provide a fair test. As business men, it is apparent to you that if the Authority is to serve only the parts of a territory which a private utility has not chosen to serve, or is to serve only sparsely populated areas, the result of our operations cannot possibly be set up as a measuring rod. The Authority will necessarily have to undertake to serve a balanced area, including some cities of substantial size, good farm territory and reasonably favorable distribution possibilities.

"The power program of the Authority is an inseparable part of an integrated plan for the development of this great region. . . .

November 11, 1933.

"A Five-Point Program for the Electrification of America"

Address of David E. Lilienthal, Director and General Counsel, Tennessee Valley Authority, before The Lawyers' Club, Atlanta, Georgia, Friday Evening, November 10, 1933.

"The Tennessee Valley Authority Act marks the beginning of a new national power policy and national power program. This new national policy has two major objectives. The first objective is more effective protection of the public interest, by the setting up of a measure of public operation of power as a 'yardstick.' The second objective of this new national policy is a greatly increased use of electricity in the homes, the farms, and the factories of the United States—an electrified America.

"The President and the Congress have set themselves to the task of putting to work the vast sources of electricity which lie idle and unused. We are working toward no less a goal than the electrification of America. The plans have been laid. Legal authority is ample. The economic difficulties can be overcome. The project is practical and feasible. The program can be carried out. Within the next decade it lies within the power of the people of the United States to make electricity in very truth the servant of the average man and woman in the homes, farms and places of business of this country.

"The power program of the Authority is a crucial part of its plans for immediate action and of the long range program for the development of this region. This power program is of particular interest not only within the Valley, but it has and is intended to have a national significance. For the problems which center about the power question here in the Southeastern region of the United States are ques-

tions not peculiar to this area, but which are common to the country as a whole.

"The starting point in any discussion of this power policy and program must be this: That the distribution of electricity is not like the usual private business, but, in the language of Lord Chief Justice Hale, is a business 'affected with a public interest.' The generation and distribution of power, whether by private or public agencies, is a public business, because in our present day community life we are all so utterly dependent upon that service. We need constantly to keep in mind this fundamental principle of the public character of the electric business.

"What power has done for us and what promise it holds, we often fail to realize. * * *

"The national power policy of the President and the Congress written into the Tennessee Valley Authority Act recognizes that electric power, next to the soil, is our greatest resource. It recognizes that the people must maintain public control of this liberating force. This is the first objective of the national power policy to which I have referred.

"In order to comprehend fully the reasons for this phase of the program, it is necessary to recall what has been happening in the United States during the past ten years. It is necessary to understand that the people back home have become thoroughly aroused; that they are determined that the disgraceful looting of the public business of power shall not be repeated. You are all familiar with the sordid story. I need not recall to your minds the quarter of a million dollars which that leading citizen of Greece, Mr. Samuel Insull, paid to the Chairman of the State Commission which was supposed to be regulating his Illinois utilities. Those of you who are investors are familiar with the story of how some operating utilities were bled of their assets by speculating holding companies. You investors will recall the dizzy pyramiding of stocks, of bare-faced write-ups, of unconscion-

able bonuses, of the purchase of utility plants at outrageously high figures and the issuance of securities on the basis of such prices. Instances of these practices can be cited to you from coast to coast.

"I have no desire to intimate that every public utility followed such practices. There were many notable exceptions. But there can be no question that in the last decade the power business was dominated by financial pirates.

"Nor have the people back home forgotten the story which was revealed by the Federal Trade Commission in its investigation of the propaganda activities of the electric industry. There has never been a bolder attempt to buy the public opinion of the people of the United States. That widespread scheme of capturing the sources of public information would have destroyed the American system of democracy which Jefferson and Jackson established. . . .

"The people back home have a way of remembering. It is that memory which accounts for the fact that no measure sponsored by the President has behind it so determined a body of public opinion as supports the power program of the Tennessee Valley Authority. The sooner the public utility industry realizes this fact, the sooner we will all be ready to deal with the more constructive features of the new national power program.

"It was with such a background that Congress passed the Tennessee Valley Authority Act, and set up a measure of public operation of the power business. This public operation is to serve as a yardstick by which to measure the fairness of electric rates. It has an additional function. It is a reminder that electricity performs a public service. It is a reminder that unless that business is conducted by private corporations with fairness, without financial jugglery and with a due sense of responsibility to the paramount public interest, that the public at any time may itself assume the function of providing itself with this necessity of community life.

"What the Tennessee Valley Authority is required to do in its power program is to set up an area for power operations. That area is to be on a comparable basis with typical private operations. To set up such a 'yardstick' the Authority obviously must undertake to serve an area which is large enough and sufficiently concentrated, and with an adequately diversified industrial, commercial and residential load to provide a fair test. As business men, it is apparent to you that if the Authority is to serve only the parts of a territory which a private utility has not chosen to serve, or is to serve only sparsely populated areas, the result of our operations cannot possibly be set up as a measuring rod. The Authority will necessarily have to undertake to serve a balanced area, including some cities of substantial size, good farm territory and reasonably favorable distribution possibilities.

"This power program is a constructive measure. Congress has not declared a national policy against the private ownership and operation of public utilities. It has rather provided for an additional measure of public protection against abuses in the conduct of a business which by its very nature, is a matter of fundamental public concern.

"So much for the first objective of the Tennessee Valley Authority—the regulatory, public control purposes of this national power policy. We come then to the second objective, of at least equal significance.

"The power program of Congress and the President has as its major objective a constantly wider use of electricity. The goal of this national power policy is a constructive one; it is nothing less than the electrification of the homes and farms of the United States. . . .

"The electric industry, both privately and publicly owned, is running into a financial blind alley unless the use of electricity can be very substantially increased within the next three years. The plain fact is that the use of electricity has fallen behind the

installation of power generating facilities. This is true, almost without exception, throughout the country. . . .

"The fundamental problem of the Tennessee Valley Authority, of the electric industry, of the Federal Government, is to devise economic ways and means to make electricity generally available, of promoting the widest possible use of power in the home, on the farm and in the factory. At the present time the average monthly use of electricity for domestic purposes in this country is about 50 kilowatt hours. That figure is a challenge to the electric industry and to the people of the country. It represents a parsimonious and niggardly use of a great national resource. We know that the figure of 50 KW hours a month can be increased several times, for in some sections of our country and in our neighbor country of Canada that very thing has been accomplished. In Tacoma, Washington, for example, the monthly average domestic use is 104 KW hours. In the province of Ontario the average monthly use is in excess of 150 KW hours.

"Looking at the country as a whole, without respect to public operation or private operation, it is perfectly evident that we now have and soon will have a tremendous surplus supply of electricity. Within the area of the Tennessee Valley, for example, privately owned electric companies have generating and transmission facilities which can care for between 30% and 40% more demands for electricity than is now required even allowing for reasonable spare capacity. A fair estimate is that 25% of the investment in power houses and transmission lines is idle, and is piling up fixed charges, because the customers of these companies are still tied to a low average use of electricity. The Tennessee Valley Authority has a hydroelectric plant at Muscle Shoals with a rated installed capacity of 250,000 H. P. But that is only the beginning of the story. The Authority is constructing a dam and power house at Cove Creek, and another dam

and power house above Muscle Shoals at what is known as the 'Joe Wheeler' dam, which together will increase the capacity of Wilson Dam to at least 600,000 H. P. Out in Colorado, Boulder Dam is rapidly being carried toward completion at a total cost of $165,000,000. Boulder Dam on completion in 1937 will add to the nation's annual supply of electrical energy 4,330,000,000 KWH. At Grand Coulee on the Columbia River and at Bonneville in Oregon are two giant power developments which are under way, estimated to cost another $100,000,000. The State of New York and the Dominion of Canada are making plans for a giant power development on the St. Lawrence River with an installed capacity of 2,200,000 H. P.

"These figures present the crux of the power problem in the United States today: **How to get this tremendous existing and future supply of electricity to the people.** It is evident that we have electricity in almost unlimited abundance. The people need and want this electricity. The problem is how to put this electricity into the homes, the farms and the factories of the United States. In the solution of this problem all of us have a common interest. The leaders of the electric utilities, as business men with a responsibility to their stockholders and to the consumers, are greatly concerned. 'Clearly the consumers and the industrialists are vitally interested. The manufacturers of electric equipment are immediately affected.'

"Breaking through the ring of difficulties, harnessing this electricity for the benefit of the people of the country is a task which calls for the cooperation of industry and government. I would like to submit for your consideration and for the consideration of every citizen who sees the significance of this situation, my conception of the underlying principles which should govern the labors of the Tennessee Valley Authority and all the other agencies whose cooperation is needed in accomplishing the electrification of America.

"I suggest a 5-point program which I should first like to enumerate and then discuss more in detail:

"1. We must begin thinking in terms of an electrified America, and cast aside the tradition which is binding us to our present niggardly use of electricity.

"2. Our entire electric rate structure must be reexamined and drastically revised.

"3. Electric-using appliances must be put into the homes and on the farms on a scale heretofore not successfully attempted.

"4. All the forces of business, scientific and engineering ingenuity and technique must be concentrated upon the problem of reducing certain of the costs of operation.

"5. The people of the country must be brought to realize that there is a pool of electricity lying idle, ready and waiting to be used, and to realize what electricity can do in lightening their burdens, in increasing their incomes and making for a richer and better life. * * *

"We then are faced with this situation. We have and are in process of constructing a tremendous pool of power for the nation, most of which is in private ownership; a considerable percentage of which is represented by Governmental investment. A large portion of these power facilities will be idle and unused and a burden upon the investors and on the taxpayers unless we can get electricity through to the people on a broad scale. Low rates which will promote and encourage the use of electricity is an essential part of this program. **But low rates alone will not do the job.** The people must have in their homes and on their farms the appliances, the devices, by which electricity is used. Particularly they must have the heavy use appliances:—In the home they must have electric ranges, electric water heaters, refrigerators and the like, with house heating and air conditioning within

the range of probability. On the farm they must have motors for many purposes, and water pumps, as well as domestic appliances."

November 15, 1933. This release was an announcement of the terms and conditions laid down by TVA for the sale of electricity by municipalities purchasing power from TVA, and contained a detailed schedule of the retail rates which TVA prescribed, together with several standard provisions of the TVA municipal contracts.

November 21, 1933.

"Address to the National Academy of Sciences in Boston by Arthur E. Morgan, Chairman of the Tennessee Valley Authority, November 21, 1933."

In this general discussion of the plans and function of the TVA, the following statements were made:

"When the law was enacted, the President was requested to place the building of the Norris Dam, which was by far the largest item of construction work, in the hands of the Tennessee Valley Authority, rather than in the hands of one of the other departments mentioned in the act. This was done in order to provide practical activities by means of which the Tennessee Valley Authority could become known to the people of the region as a competent administrative organization. With this construction committed to the Tennessee Valley Authority, it became necessary to develop a well-designed administrative organization and to enter vigorously on a construction program.

"A little more than five months have elapsed since the directors of the Tennessee Valley Authority were appointed and confirmed by the Senate, the necessary

appropriations passed, and the corporation organized. As this was a new type of organization under the sun, with a board of three directors who were strangers to each other, and since every point of policy and program, and every relation to the administrative processes of government, had to be developed, some time necessarily was consumed in getting our bearings. A power program, a program for the development of fertilizers, and a general program of planning, had to be formulated, as well as an immediate construction program. * * *.

"The Tennessee Valley Authority is interested in the electric power issue on several counts. First, if a case of public ownership and operation can be established, with fully open and comparable cost accounts and records, we may be provided with a 'yardstick' by which we may discover what electric power actually ought to cost. The private utilities, if they are sincere in their expressed belief in the superiority of private ownership and operation, should welcome such an example.

"It is not only the private utilities that will be provided with a 'yardstick'. Public ownership will be on trial. One of the greatest diseases of our national life is the spoils system in public office. Unless it can be overcome it threatens the very life of our democracy. If the public generation and distribution of power can be kept free and clean from the spoils system, there seems to me no reason why it cannot be economical and effective. If government owned power cannot keep free from this incubus of political patronage, we had better discover that fact on a small scale, before we are plunged into some nation-wide scheme of public ownership.

"Another object of the T.V.A. is to make this region and the country as a whole more fully aware of the vast possibilities of electric power for enlarging the freedom and scope of modern life in the home and on

the farm. This can only come with cheap power, from which all speculation and exploitation have been removed. The electric power business is one of the simpler industries of our country. It does not compare in complexity with the shoe industry, the automobile industry or the railroad industry. No vast tribute should be paid for management and financing. Brought down to its simpler necessities, electric power should be a universal convenience, supplied as city water supplies usually are, on a basis of service and not of commercial exploitation.

"Lastly, the economy of electric power in the Tennessee Valley area will depend much on large scale developments that are designed and operated as single integrated systems. The entire Tennessee River system, with its thousands of miles of streams, should be under one control and ownership, which means government ownership."

December 1, 1933. This was a general news release by TVA, the effect of which is sufficiently stated in its opening paragraphs, as follows:

"That negotiations are in progress between private utilities operating in the Tennessee Valley area, and the Tennessee Valley Authority was revealed today in a statement by David E. Lilienthal, member of the Authority in charge of power.

"Director Lilienthal stated that the negotiations were initiated two months ago, at the invitation of the President of the holding company which controls the Alabama Power Company, Tennessee Electric Power Company, Georgia Power Company and Mississippi Power Company, and have been carried on since that time, in Washington and New York."

December 5, 1933.

"The Tennessee Valley Authority and Electric Power

By

Arthur E. Morgan

Chairman of the Tennessee Valley Authority

Address to the American Institute of Electrical Engineers (New York Section) at the Engineering Society's Building, New York City, December 4, 1933, 8:00 P.M."

The address contained the following statements as to the TVA plan and program:

> "The Authority has in view a policy which would lead to great economy in hydroelectric power generation. Water power in the future may have very stiff competition from both steam and Diesel engines. Whether these three million kilowatts of potential waterpower in the Tennessee river system can be developed in competition with other sources of power will depend upon whether every possible economy is achieved in its development. If the cost of generating water power should be half a cent per kilowatt hour it may lose out before steam or the Diesel engine. If the cost of water power can be reduced to a quarter of a cent per kilowatt hour it may have a relatively clear field.
>
> "Without suggesting any particular level of unit cost I venture the opinion that if the water power development of the entire Tennessee river drainage area of 40,000 square miles can be given a single unified ownership and control, the unit cost of power may be no more than half of what it would be with divided ownership and management. * * *
>
> "I hold that such unified control and operation implies government ownership and operation. It may be

argued that all this could be accomplished under private ownership and operation. But I hold that it should not be in private hands unless that should be necessary to avoid gross inefficiency and corruption of the spoils system.

"The control of this great electric power system by a private corporation would give economic power over the people of the region which no self-appointed men ought to hold. Such management and operation would of necessity be governmental and public in its nature, whether privately or publicly owned. It would be necessary to exercise the right of eminent domain, and to have control over the economic life blood of a vast region. Public regulatory bodies have not proved their ability to control such vast aggregations of economic power.

"The only justification for the self-appointed management by private ownership of a development so essentially public in its nature is the fear of incompetence and corruption through the spoils system, or dry-as-dust bureaucracy through a perfunctory Civil Service.

"One of the purposes of the Tennessee Valley Authority is to provide a case in public ownership and operation and to discover wherein lies the mysterious difficulty in utility operations. Since an important municipal system like that of Tacoma has not disclosed those difficulties, a trial on a larger scale seems desirable. * * *

"The Power program of the Authority is in the hands of Mr. David E. Lilienthal, one of the directors. Contracts have been made for furnishing electric current to one municipality in Mississippi and two in Alabama. Various other requests have been received from those states and from Tennessee, Georgia and Kentucky. It is the hope of the Authority to so stimulate the use of electric power that its activities shall

be a stimulus and not a deterrent to the whole industry. * * *

"The power program of the Tennessee Valley Authority is an effort in a limited area to bring about a cheap and ample supply of power on a self-supporting basis, as one of the several conditions necessary to an enlightened and wholesome economy in the region it is trying to serve."

December 5, 1933. This entire release is as follows:

"In announcing that three municipalities have contracted for Muscle Shoals current to date, Chairman Arthur E. Morgan of the Tennessee Valley Authority declares that the Authority is refraining from any campaign to take customers from private utilities.

'Prospective customers must take the initiative,' says Chairman Morgan. 'Genuine effort is being made to disturb security holders as little as possible. Statements spread broadcast by the utilities themselves among small holders of their securities during the consideration of the TVA bill in Congress, to the effect that if the bill should pass the utilities would be ruined, have perhaps been believed by some persons. The Authority cannot, of course, be held responsible for the unfortunate results of the pessimistic forebodings of this propaganda of the private companies.

'Why do bankers own electric power systems rather than shoe factories and automobile factories?' asks Chairman Morgan. 'Is it not because utility systems are essentially simpler in production, in distribution, and in marketing? Colleges and universities train the technical skill; there are neither fads nor fashions in the product; collections are easily enforced; competition is reduced to a minimum; the production equipment seldom wears out; and the general government vests the utility with the governmental power of eminent domain. What important element of equipment has been developed by the utilities themselves?

'From my experience with more than fifty public bond issues I am of the opinion that in normal times a sound development with good security need not pay great sums for investment banking services. It is my opinion that a national association of the managers of publicly owned power systems would not be inferior to the present set up in contributions to the science and art of the electric power industry.

'Just as an adverse balance of foreign trade tends to bankrupt a nation, so the constant drain from a municipality of payments to a foreign owned utility tends to economic impoverishment. Given administration of equal quality, the ideal status of a city utility is that it is fully amortized and is owned by the public it serves. Regional independence from a perpetual drain is no less important for an area as large as that of the Tennessee Valley Authority than for a city. In good economics only that should be imported which cannot reasonably well be produced at home. Absentee ownership of utilities is an unsound policy unless there are determining reasons for it. One of the purposes of the Tennessee Valley Authority is to provide a case in public ownership and operation and to discover wherein lies the mysterious difficulty in utility operations. Since an important municipal system like that of Tacoma has not disclosed those difficulties, a trial on a larger scale seems desirable.

'The power program of the Authority is an effort in a limited area to bring about a cheap and ample supply of power on a self-supporting basis, as one of the several conditions necessary to an enlightened and wholesome economy in the region it is trying to serve.' "

December 18, 1933. This release announced that:

"The Tennessee Valley Authority has decided that development of the Aurora Dam on the Tennessee River should be a part of the Authority's plan for an

integrated power program embracing the entire Tennessee river basin. This decision has been forwarded to private interests which sought control of the Aurora dam site.

"The Aurora project is located in Kentucky approximately 44 miles up stream from the confluence of the Tennessee and Ohio rivers at Paducah, Kentucky. * * *

"For the Tennessee Valley Authority to have an effective unit of power, it should control both Muscle Shoals and Aurora dams."

January 5, 1934. This was an announcement of the execution of the contract of January 4, 1934 (Exhibit 5 to the Bill of Complaint, R. p. 133), stating that, "Under the agreement, the President's power 'yardstick' is set up in initial form, and immediate Muscle Shoals power service is provided to householders and farmers in the Tennessee Valley." It contains a statement by Director Lilienthal "of the advantages, objectives and terms" of the contract, including inter alia the following:

"The agreement is a demonstration of the Authority's often expressed policy to carry out the mandate of Congress and yet avoid the destruction of prudent investments in privately owned public utilities. By the purchase of private utility property which was found to be useful, at prices which were fair but not more than they were reasonably worth, the Authority has avoided the necessity of building duplicating competing facilities, with consequent injury to the public investors in existing utility property.

"Had the power companies who are parties to this contract been unwilling to sell these facilities at a fair price, or had they insisted on payment for intangibles or 'water,' the Authority would have been under a definite mandate to construct duplicating facilities rather than submit to being 'held up.' The contract

provides an immediate source of substantial revenue for the Tennessee Valley Authority power operations from purchasers at wholesale. This revenue will immediately put the Authority's power operations on a self-sustaining basis.

"The size of the area which the Authority determined to acquire, was determined in a large measure by the amount of power it now has available, that is, by the existing firm power capacity of the Muscle Shoals plant. Until further power is available to the Authority by the completion of Norris Dam (estimated to be ready in three years) only those communities could be served which in the aggregate would not exceed in their power demands our capacity to furnish immediate and continuous electric energy. The area ceded by this contract, together with the city of Knoxville, which recently voted to become a wholesale purchaser of Muscle Shoals power, added to the requirements of rural electrification projects now under way, and demands in territory outside the ceded area, will absorb virtually all of the power which Muscle Shoals can produce, allowing a safe margin for increased use of electricity which the Authority's low cost appliance program is certain to induce.

"Obviously the Authority could not undertake to serve all of the two hundred communities who were applicants. A selection had to be made, so that the area served would not demand more than the available power. The area selected excludes, for the time being, many communities applying for power. The Authority, under the contract, may extend its operations outside of the selected territory, if it can supply sufficient power to do so. • • •

"Perhaps as important advantages as any others which will be derived under this contract by the Authority and those who receive service from it are the provisions giving the Authority the right to use power under a plan known as 'interchange.' Without such

an agreement, were the Authority to attempt to serve an area, it would be under the necessity not only of building a transmission line to points to be served but also of protecting the continuity and reliability of that service by the construction of a second, or return transmission line back to the source of supply. This would involve very heavy capital expenditures.

"The arrangement provides the machinery for early operation of the Authority's plan for the distribution of low cost standard electric appliances, such as ranges, water pumps, hot water heaters, refrigerators, and portable motors, pursuant to the powers of Electric Home and Farm Authority, a subsidiary of the Tennessee Valley Authority, created by order of President Roosevelt December 19.

"The essence of this agreement is the recognition by the power companies who are parties to the arrangements that the Tennessee Valley Authority is under a duty to operate a public power business, directly and through public agencies, in order to provide a public 'yardstick' of the fairness of the rates charged by privately owned utilities.

"The negotiations leading up to the contract were initiated three months ago, and carried to a conclusion by Mr. Wendell L. Willkie, President of the Commonwealth & Southern Corporation, the holding company controlling the principal power companies in the Tennessee Valley area, and on behalf of the Tennessee Valley Authority by David E. Lilienthal, Director in charge of power. The negotiations were conducted in Washington, New York, Chattanooga, and were finally concluded today in Knoxville."

January 6, 1934.

Business and Government in the Tennessee Valley

Text of Paper by David E. Lilienthal, Director and General Counsel, TVA, read before American Academy of Political and Social Science in Philadelphia, Penn., January 5, 1934.

This release includes the following statements as to the scope and functions of the TVA:

"The Tennessee Valley Authority, created some six months ago by act of Congress, is a public agency in the form of a corporation. Its powers are exercised by a Board of three Directors, appointed by the President, with the advice and consent of the Senate. This Board is given the same broad discretionary powers in the exercise of its duties which are customarily vested in the directors of private business corporations. In his message to Congress transmitting the bill creating the Authority, President Roosevelt commented on the fact that this government corporation was to have the same flexibility and opportunity for initiative which is customarily characteristic of a private business corporation. . . .

"The Tennessee Valley Authority bears two major relationships to business. One is that of a regulatory agency. The second is that of a stimulant to business. . . .

"There has been a growing feeling that this method (regulation by Commission) of expressing the regulatory relation of the government to the public utility business was inadequate to meet the needs of the situation. These critics insisted that commission regulation, by and large, had been ineffective; that in many states instead of the regulators regulating the utilities, the utilities were regulating the regulators; that

financial abuses of the most lurid sort had taken place despite regulation; that the processes of regulation were too slow; and that the great technological savings in the field of electricity had not been passed on to the consumers.

"The power policy written into the Tennessee Valley Authority Act represents an attempt to regulate public utilities not by quasi-judicial commissions, but by competition. The Act definitely puts the Federal government into the business of rendering electric service. The Authority is required to acquire a market, to set up an area in which to conduct its operations. The results of these operations in this limited area are intended to serve as a 'yardstick' by which to measure the fairness of the rates of private utilities, and to prevent destructive financial practices by private utilities.

". . . In carrying out this competitive relation between the Federal government and the private business of electricity, the wastes of competition are to be eliminated, and the regulatory function of competition emphasized. In other words, duplication of facilities and competition in the same community is to be avoided. There is not time to discuss in detail the principles which the Authority has adopted to govern its operations in this new relation as a competitor of a public business. These principles have been set out by the Authority in its Power Policy, and have been discussed in some detail in various public statements.

"A second important relation of the government to private business is to act as a stimulant to business activity—to be in a sense a catalytic force; to act as a focal point for cooperation between the various conflicting forces of business. . . .

"In common with other recently created agencies of government, the Tennessee Valley Authority has a definite duty and a definite role to play in this new function of government as a stimulating and coordi-

nating force. There are a number of illustrations in the work of the Tennessee Valley Authority of this need of government stimulation. The most recent, and perhaps the best illustration, is afforded by the creation a few days ago, by order of President Roosevelt, of a subsidiary of the Tennessee Valley Authority, a Delaware corporation known as Electric Home and Farm Authority. . . .

"In the Tennessee Valley there are great actual and potential sources of electricity. Private and publicly-owned agencies now have developed generating capacity from thirty to forty per cent in excess of existing requirements. Additional generating capacity is being developed with public funds. The same situation is true throughout the country. The people need and want this electricity in their homes, on their farms, and in their places of business, but as a matter of fact the use of electricity in the United States has been extremely limited. The average domestic consumer throughout the United States uses about 50 KWH of energy a month, a niggardly and parsimonious use of a great resource.

"Two barriers have stood in the way of a wide-spread use of this liberating force. The first and most important barrier is the rates charged for electricity. These rates have been too high to permit of the general use of electricity. As a result the use of electricity has been restricted and has never, except in unusual communities, reached the proportions justified by the universal need and effective demand for this service.

". . . Electric Home and Farm Authority was created to remove these barriers to a wide use of electricity and to a more stable and prosperous business for the electric manufacturers and the utilities."

January 20, 1934.

"The Electrification of the American Home"

(Address by David E. Lilienthal, director and general counsel of the TVA, delivered over the Columbia Broadcasting System national radio network)

In this speech the following statements as to the actions and purposes of the TVA were made:

"I want to talk to you this afternoon about that which I suppose is closest to the heart of every man and woman—the home. I want to tell you of some of the things which your Federal Government is doing in the field of electricity to make your home more convenient and more comfortable; what it is doing to lighten the labors of the millions of women who have the responsibility of guiding and caring for the home. More specifically, I shall speak of the work the Tennessee Valley Authority is doing to electrify the American Home. . . .

"The Tennessee Valley Authority is now employing thousands of men and spending millions of dollars in the construction of two great power dams and a 230 mile electric transmission line. But what we are constantly keeping in mind in this electricity program is not dams, or generators or lines, but the every-day needs and desires of the men, women and children of the Tennessee Valley. We have devised practical ways and means to make electricity available at rates so low as to be within the most modest budget. . . .

"There is no scarcity of a supply of electricity. The sources of electricity are abundant. We are convinced that the principal barrier to a wider use of electricity by the American housewife is the rates which are charged for electricity.

"We believe that, before the American home can be electrified, the rates charged in the country generally must be substantially and drastically reduced. And we believe further, that such reductions in rates will so greatly increase the sale of electricity that those reductions will be beneficial to the electric business.

"Drastically lower rates for electric service is the first step toward a wider use of electricity. The Tennessee Valley Authority is proceeding to put such substantially lower rates into effect in the area in which it is to distribute Muscle Shoals electricity."

February 3, 1934. This TVA release was a statement headed "The Electric Home and Farm Authority, Incorporated. General Information." It includes the following statements concerning the functions and purposes of TVA and EHFA:

"In the Tennessee Valley there are great actual and potential sources of electricity. Private and publicly-owned agencies now have developed generating capacity from thirty to forty per cent in excess of existing requirements. Additional generating capacity is being developed with public funds. The same situation is true throughout the country. The people need and want this electricity in their homes, on their farms, and in their places of business, but as a matter of fact the use of electricity in the United States has been extremely limited.

"Two barriers have stood in the way of a widespread use of this liberating force. The first and most important barrier is the rates charged for electricity.

"Not only the high cost of electricity, but the relatively high cost of electrical appliances has constituted a serious barrier to the increased use of electricity.

"Here was an opportunity for government, represented by the Tennessee Valley Authority, to act

as a stimulator and coordinator in its relation to business.

"The creation of Electric Home and Farm Authority by order of President Roosevelt is the outgrowth of negotiations instituted by the Tennessee Valley Authority with the electric appliance manufacturers of the country and with the principal electric utilities operating in the Tennessee Valley area.

"The objective of this program is a wider and greatly increased use of electricity in the home and on the farms in the seven states of the Tennessee Valley.

"The Tennessee Valley Authority, within the sphere of its own power operations, is setting rates for domestic and rural service which it believes will demonstrate not only the social desirability but the business wisdom of greatly reduced electric rates. With these reductions in electric rates, one of the principal barriers to the use of electric appliances will be removed, and general, widespread use of electricity will become feasible."

February 7, 1934.

Address by Dr. A. E. Morgan, Chairman
of the Tennessee Valley Authority,
delivered before the
American Society of Landscape Architects,
Mayflower Hotel, Washington, D. C.
January 29, 1934.

This speech was a general statement of the functions and purposes of TVA with reference to social planning, containing the following:

"The Tennessee Valley Authority is the expression of a desire on the part of the President and Congress to work out in a limited area principles of so-

cial and economic planning which can later have application on a wider scale. * * *

"Among the fundamental purposes to be achieved are: that haphazard and unregulated growth shall be displaced by intelligent and orderly planning; that great wastes in the present way of doing things shall be eliminated, among the greatest wastes at present being the wastes of frustrated hopes and ambitions of people who find no fair chance at life. A controlling purpose should be that our great wealth and resources shall be fully used for the benefit of the whole people, and not for a small part of the people at the expense of the rest. * * *

"For instance, there is the matter of water power development. The Tennessee River system drains 40,000 square miles. It includes thousands of miles of streams and a potential power development of several million horse power. In the past, individual power projects in this river system have been developed without relation to each other. If the entire system can be developed according to one unified plan, including power sites on the main river where no storage is possible, and power sites on the headwaters where excellent storage and regulation can be secured, the cost of power may be not more than half what it would be with a number of unrelated smaller developments. The enormous social waste of isolated developments must be eliminated. This means unified planning on a large scale. * * *

"The public generation and distribution of power is on trial in the Tennessee Valley. One element of social and economic planning is the development of these power facilities and the development of modern accounting methods and administrative methods to insure economy and efficiency in operation.

March 21, 1934. This release contained the following announcement:

"Contracts to serve cheap TVA electricity to nine cities with a population of approximately 200,000 have been signed by the Tennessee Valley Authority, David E. Lilienthal, TVA director in charge of power, announced today.

"Heading the list is Knoxville, Tennessee, which already has been granted a loan by the Public Works Administration to construct distributing lines. The city's offer to purchase the existing facilities having been turned down, officials are now negotiating with an engineering firm to draw plans for a new system.

"Other cities with which contracts have been signed are Decatur, Florence, Sheffield, Tuscumbia, and Russellville, in Alabama; Pulaski, Tennessee; and Amory, Mississippi. Tupelo, Mississippi, the first city to sign for TVA power, is now being served with low cost electricity from Muscle Shoals."

April 6, 1934. Announcing the opening of the EHFA appliance selling program, this release states that Mr. Lilienthal and other officials of EHFA will attend the opening day sales and demonstrations at Tupelo, where civic organizations and municipal officials have planned a celebration for the day. Director Lilienthal was quoted as saying, inter alia:

"The opening at Tupelo will mark the beginning of a concentrated effort to electrify the American home. Tupelo was selected for the launching of our appliance program because it was the first municipality to contract for TVA power.

"We hope and believe that the example being set by Tupelo will be followed throughout the country.

"Application of our appliance program at Tupelo and in the surrounding area is a natural outgrowth of the spirit of active cooperation this community has demonstrated since the passage of the Tennessee Valley Authority Act a year ago."

April 17, 1934. This release states in part:

"David E. Lilienthal, president, Electric Home and Farm Authority, appliances subsidiary of the Tennessee Valley Authority, today announced the selection of a special TVA emblem to be placed on all appliances sold under the EHFA program.

"The emblem was designed by Young & Rubicam, a New York advertising agency, and was selected from a large number of emblems submitted by various advertising agencies.

"It consists of a blue hand holding a lightning bolt in red, with TVA in large red block letters below the hand. Beneath the TVA, there is the slogan:

'Electricity for all.' • • •

"We shall retain rigid control of the use of this emblem on appliances. It can be used only on appliances manufactured to EHFA quality and price specifications, and only on those appliances when they are sold in areas served at TVA rates or at rates which the Authority considers low enough to make use of this equipment feasible to families of low or moderate income.

"The emblem will be used throughout the power department of the Tennessee Valley Authority, Mr. Lilienthal said. Eventually it will be placed as an identifying mark on all equipment of this branch of the Authority."

April 22, 1934.

Address of David E. Lilienthal before the Tennessee Valley Institute of the University of Chattanooga, Chattanooga, Tennessee, 8:00 P. M., April 21, 1934.

The Future of Industry in the Tennessee Valley Region.

This address included the following expressions:

"It is my firm conviction that the Tennessee Valley

region is to be the scene of an expansion of industry which in the course of the coming decade will change the economic life of the South. If this industrial development is controlled in the interest of the entire community and fitted into a national program, it will stimulate and regenerate the industrial life of all America. * * *

"I should like first of all to enumerate those factors in the economic situation of this great region, upon the foundation of which a period of industrial development will arise. I shall then discuss each of these factors more in detail.

"First: We can have in this region low-cost electric power in almost unlimited quantities.

"Second: This is an area of natural resources almost unequalled in their variety and richness, not the least of which is a climate most favorable to health and well-being and the successful pursuit of agriculture.

"Third: Is the great potentiality of this area as to economical transportation—water, rail and highway.

"Fourth: And perhaps most important of all: In creating the Tennessee Valley Authority the President and Congress have made it possible for this area to develop its natural resources, its power and its transportation in accordance with an integrated and orderly plan. Under such a plan the shortsightedness and greed of individuals and single communities can be controlled, and the interests of the people as a whole kept paramount. Such an integrating and unifying force in the development of industrial resources is unique in our nation's history.

"I turn first to the reason which I have suggested as insuring a period of great industrial expansion for the South—the availability of cheap electric power.

"The TVA has under way, as you know, a comprehensive program for the development of the power

resources of the Tennessee River and its tributaries. No more ambitious program of hydro-electric development has ever been actually undertaken in this country. Aided by an exhaustive survey prepared by the corps of Engineers of the United States Army under the direction of Colonel Harold C. Fiske, the Authority is constructing what probably will be the most efficient system for the utilization of the water resources of a vast area.

"As you know, we have started with the nucleus of Wilson Dam at Muscle Shoals. Within two years two more great dams will be completed—one, the Norris Dam on the headwaters of the Clinch River near Knoxville; the other, the Joe Wheeler Dam just above the Wilson Dam in Northern Alabama. Four other major dams of various types will probably be approved for early construction. A large staff is now planning the dam-building program for the next decade. * * *

"By the use of storage reservoirs and central control, all the vast economies of large-scale production will be utilized, and the Tennessee River and its tributaries will be made to yield their great potential wealth into the hands of the people of the Tennessee Valley. The presence of coal in great quantities for standby and auxiliary steam plants will tend to keep the cost of electricity below that possible in areas having favorable hydro-electric power but in which coal is costly.

"Perhaps the most important factor in insuring a low cost for hydro-electric power in this region is the fact that the distribution of this power to the factories and homes and farms, for the most part, will be in the hands of public agencies. Industries seeking to use large blocks of hydro-electric power in the Tennessee Valley will not be forced to support dizzy towers of inflated capitalizations. They will not have to pay for the financial misdeeds of the builders of utility pyramids. Under public distribution of power with centralized accounting, control and supervision in the

hands of a regional authority, there will be the greatest incentive to economy and managerial efficiency. • • •

"It is unnecessary to demonstrate to this audience the importance of low industrial power rates in the development of an industrial program. • • •

"It is inevitable that industry will turn to this region as the Tennessee River yields to this program for the development of low-cost power.

"To weave together all of these favorable factors, to aid in charting the course of the development of this region in an orderly and effective manner, was a major purpose of President Roosevelt in urging the creation of the Tennessee Valley Authority. • • •

"The ways in which the TVA can function in carrying forward this program of industrial expansion are many. In some capacities it will act as a proprietor, such as in the case of its electric operations. In others, it will furnish the disinterested technical advice of engineers, accountants and business men. • • •

"Through the nation-wide publicity given the Authority's operations, the advantages of the region will receive the widest attention of business men the country over.

"I am very definitely of the opinion that it is the Authority's duty to encourage and stimulate the growth of large-scale industry in the Tennessee Valley area. We are making provision for one of the largest hydro-electric developments in the world, with a potential three million horse power available. We are expending, and expect to expend, millions upon millions of dollars in construction activities, all looking toward the development of more and more power. Although we are bending every effort to greatly increase the use of electricity in the home and on the farm, it is obvious that only a large-scale industrial expansion will absorb the great pool of power which is thus being created. As we lay our plans for developing this cheap power in great quantities, it seems to me

to be mandatory that we also lay plans for utilizing it in an industrial expansion program.

" . . . It will be a sad day for Southern industry if the presence of a new factory here means merely the creation of an industrial graveyard in New England, or some other section. What I see for this area is an economically sound growth of commerce and manufacturing, which will fit itself into a national economy. It seems to me that it would be no less than fatal and destructive to the entire program if industry were to come to the Valley on any other basis than the natural advantages of the region. The South has ample inducement to offer on strictly business merits of the advantages found here. I believe that we all recognize that the South today needs no false lures to win the industrial development which should naturally be here."

April 25, 1934. Address of David E. Lilienthal, Director and General Counsel of the Tennessee Valley Authority, before the League of Women Voters, Boston, Massachusetts, Even of April 24, 1934. This speech was devoted to the power program of the TVA, together with an attack upon privately-owned utilities and utility holding companies. Most of the statements as to the TVA program were literal repetitions of statements from other speeches by Mr. Lilienthal already quoted.

May 10, 1934. Report of Arthur E. Morgan to the President on the activities of the Tennessee Valley Authority. This was a reprint, circulated by TVA, of the letter to the President of this date elsewhere set out herein (R. p. 575).

May 17, 1934. "The Tennessee Valley Authority and the Investor." Remarks of David E. Lilienthal, Director and General Counsel, Tennessee Valley Authority, before the National Association of Mutual Savings Banks, New York, May 17, 1934.—Hotel Waldorf-Astoria.

This speech was largely an elaborate criticism of the ıancial practices of utilities and utility holding comnies, together with a discussion of the power program the TVA, but in much the same language already quoted om other addresses, including the following statements:

"You know, I believe, in a general way at least, that the duties of the Tennessee Valley Authority encompass a wide field in the planned development in seven states of an entire river watershed. It is particularly in connection with the power program of the Authority that the problem of justice to the investor arises.

"In discussing the power policies and plans of the Tennessee Valley Authority, it seems to me important that we first consider the position of the institutional investors in the electric industry as a whole . . ."

"The record shows that important common stock management groups have in effect been steadily confiscating senior security values. Your investment has been sapped in a variety of ways. * * *

"By 1933 the management of some of our major electric utilities had become a national scandal. It was inevitable that President Roosevelt and the Congress should see that regulation alone was inadequate to fully protect either the consumer or the investor. It was plain to all that regulation needed strengthening and needed supplementing.

"Neither the industry nor the investors took effective action to meet this situation. The President and Congress, in setting up the Tennessee Valley Authority, were merely responding to an overwhelming public sentiment. The public, investors and consumers alike, demanded an experiment on a broad scale, of public electric operation. This development was designed to serve as one means of seeking to prevent a continuation of financial and operating practices which had brought discredit on the entire industry, sound and unsound managements alike.

"As institutional investors, you will be interested principally in those plans and policies of the Authority which most directly affect the investment quality of the securities of the electric industry.

"The Authority is under the duty to acquire a market for its power. It is authorized to compete with existing utilities, and for this purpose is expressly empowered to erect duplicate facilities. But no competing facilities have been constructed, and I am authorized to say that under its present Board none will be constructed, until every reasonable alternative has been exhausted. * * *

"Our adherence to these policies should reassure you of the Authority's determination to respect prudent investment in useful property. * * *

"We have been given a national power policy to execute in the Tennessee Valley. It is intended to serve as a demonstration and an experiment. It answers an overwhelming public demand, after a decade of experience injurious to both investors and consumers. Under this new policy prudent investment in useful property will not only be respected but protected."

June 1, 1934. This release announced that TVA had paid $850,743 for the properties of the Mississippi Power Company in nine counties in that state.

June 7, 1934. Excerpts for Address of Dr. Arthur E. Morgan, Chairman of the Board, Tennessee Valley Authority, before combined civic clubs of Dayton, Ohio, June 7, 1934. This address contained some repetitions of statements concerning the scope and program of TVA already quoted.

June 13, 1934. This release is a summary by TVA of the matters referred to, and is set out in full:

"Washington, June 13—Details of the Tennessee Valley Authority's efforts to protect the electric investor against the inevitable losses of competition are revealed in an exchange of correspondence between Director David E. Lilienthal, in charge of of the TVA power program, and C. E. Groesbeck, chairman of the board of the Electric Bond and Share Co., of New York, made public by the former here today.

"The issue involves Knoxville, Tenn., which on Nov. 25, 1933, voted for municipal ownership and to purchase power from TVA. In early March, 1934, the city endeavored to purchase the local distribution system of the Tennessee Public Service Co., owned by the Electric Bond and Share Co., but failed, whereupon the city moved to build a competing plant. To avoid such duplication of facilities, the TVA has since made several offers to purchase, to the extent of acquiring most of the system for $6,550,000 and selling it back to Knoxville and adjacent municipalities.

"On May 28, 1934, the TVA proposed buying all electric property which the Tennessee Public Service Co. is in position to sell, for $5,250,000. It pointed out that, according to the report to the President of the United States by Federal Trade Commission accountants who examined the company's books, the difference between the company's capitalization and rate base is accounted for by certain writeups effected at the time of the concern's reorganization late in 1930. Said Director Lilienthal in his letter to Mr. Groesbeck of that May date:

> " 'This report indicates that as between Oct. 30, 1930, and the following day, Nov. 1, 1930, without any addition to property, the assets were written up $4,560,442.34. This write-up, together with other appreciation of property at the time of the reorganization, totals $4,945,117.78. With

the elimination of this write-up by writing off the common stock of $5,000,000, there is close agreement between your capitalization and the rate base of $12,000,000. Inasmuch as the Tennessee Valley Authority's offer of $5,250,000 is a fair one as measured by the rate base of $12,000,000, it is also, therefore, a fair one as measured by the capitalization after write-ups have been eliminated, i. e., about $12,000,000.

"'The right of the people of Knoxville to serve themselves with electricity, and to become part of the President's 'yardstick' area is surely not open to doubt. The foregoing proposal gives effect to that right, and yet protects the electric investor against the inevitable losses of competition."

June 22, 1934. This release was the report of a speech delivered by David E. Lilienthal before "a mass meeting of civic leaders from several West Tennessee cities" at Jackson, Tennessee, in which he said inter alia:

"The Tennessee Valley project translates into concrete form a vision of President Roosevelt. The project was born in his mind, and it is being carried forward under his guidance. It is part of a program for national development. It is not a local project. Its implications extend to the outermost reaches of this country. It is this objective that justifies the huge expenditure of Federal funds in one section of the country.

"I am not an alarmist, but I want to warn you that powerful forces are at work to deprive the South of the greatest opportunity which ever came to any people. A year ago the disciples of greed and blindness that brought this country to the verge of a collapse had hurried into the storm cellars, whimpering and crying for help.

"Now that a courageous leadership has enabled the country to weather the storm, these selfish and ignorant forces are coming out of the storm cellars and once more getting in their deadly work.

"The people of the country must choose whether to follow the leadership of the President or the leadership of the selfish and blind that brought us so close to destruction.

"The first great test is in your hands here in the Tennessee Valley. Under the cover of various disguises, powerful forces are at work to destroy the long-time objectives of the Tennessee Valley Authority. In order to fill their own pockets, these powerful groups are ready at any cost to destroy the Tennessee Valley Authority's program and to keep the President's objectives from being fulfilled.

"Whether the people will win or the disciples of selfishness and blindness will win depends upon you. There is no force, however powerful, however subtle, however firmly entrenched, which can withstand the force of a united public opinion.

"A program for a better balanced economic life must begin with the fundamental proposition that the purchasing power of the average man and woman must be increased and must be stabilized.

"This is the cardinal point in the work of the Tennessee Valley Authority which underlies all of its activities.

"The electric program of the Tennessee Valley Authority has particular reference to increasing the available income of our people through making the consumer's dollar go further, both in securing for him more electrical energy for his dollar through lower rates, and by making possible the purchasing of electric appliances at lower costs."

"The proposal was rejected by Mr. Groesbeck who, on June 8, wrote Director Lilienthal:

" 'We appreciate and our security holders must

likewise appreciate the situation in which they are placed and that they are faced either with ruinous competition made possible by agencies of the Federal government or with selling at such price as you may offer. Under the constraint of these circumstances we repeat again that in a desire to cooperate to the greatest extent possible with the Government's Tennessee Valley program we are prepared to evacuate the territory served by this Company, so that you may conduct your experiment unhampered by competition, provided our security holders are dealt with fairly. . . . we think the offer you have made does not accomplish this and as it will not even pay off the bonds much less allow anything on the preferred stock.'

"Replying under date of June 12, Director Lilienthal declares:

"'The attitude expressed in the early pages of your letter toward the agencies of the public which are involved in this situation disturbs me a great deal, for it may be a greater barrier to an agreement than the controversies respecting dollars and cents. You refer to the 'activities of the Tennessee Valley Authority in the area' and to the loan and grant to the City of Knoxville by the Public Works Administration very much as if these two agencies were outside interests plotting the destruction of your business. You seem to forget that both the Tennessee Valley Authority and the Public Works Administration are instrumentalities of the people of the United States; that their 'activities' which you thus descry are in execution of policies of the entire nation, formulated under the Constitution by the President and the Congress. To my mind it seems clear that the

public interest must come ahead of every other interest of whatever kind or character. Fairness to private investors is however, an essential of sound public policy, and our offer is based on this promise.'

"In making a maximum offer of $6,550,000, Director Lilienthal extended the date of its expiration to include June 20. He said in conclusion:

" 'The Tennessee Valley Authority has entered into these negotiations in an effort to find a peaceable and constructive way of carrying out a public purpose—a national policy—declared by the people of the country through their President and their Congress. We trust that your letter, setting up as it does an unacceptable proposal, and an unacceptable principle, does not mean that these efforts towards peace must be abandoned.' "

July 1, 1934. This was a general release beginning with the statement: "Surveys are under way to determine the most feasible sites for additional dams on the Tennessee River and tributaries, Arthur E. Morgan, Chairman of the TVA, announced today," and contained the following expressions:

"Contrary to widespread opinion, definite sites for additional dams have not been located. Before this can be done many time-consuming operations are inevitable.

"First it must be determined where additional dams would be of most value in a progressive, integrated development of the entire Tennessee River watershed, having in mind the well-being of all citizens. * * *

"Residents of the valley should regard the Authority's power development as a single unit, rather than as the creation of a number of individual power dams.

"We are not proposing to build seven or eight separate power dams, operated individually for the benefit of the immediate vicinity. All dams, wherever located, will be linked by transmission lines and will thus form a single system. Regard the whole project as 'one huge dam' if you wish to put it that way. No matter in which section of the valley the electricity is generated, it will be available to all sections. But each of these individual dams, under construction, or in contemplation, is needed to create this unified, integrated system. The coordinated operation of storage reservoirs as a unified system will also be used to secure a maximum degree of flood control and improvement of navigation on the Tennessee."

July 6, 1934. This release was an announcement by David E. Lilienthal of the submission by TVA to some 13 municipalities in North Alabama of a plan whereby TVA would purchase and operate the properties of Alabama Power Company in those communities, under an agreement to transfer the properties to the municipalities, which would pay for them out of earnings without cash outlay or pledge of credit. It contains the following statements:

"These communities have attempted, without success, to purchase existing Alabama Power Company facilities. TVA has secured an option on such facilities at fair prices and, under the proposed plan, these facilities would be taken over immediately by TVA, which would re-sell them to the various municipalities when the facilities have been improved and expanded and the municipalities were in a position to take them over. * * *

"TVA and its subsidiary, Electric Home and Farm Authority, will engage in an intensive program of domestic, industrial and commercial load building in this territory, utilizing EHFA facilities, making available

low priced electric appliances to consumers upon the EHFA long term financing plan. • • •

"Mr. Lilienthal also pointed out that the new plan is in the interests of the Authority's objective of making available low cost power through public agencies, at the same time adopting every reasonable means of protecting investors in existing public utility properties by purchasing such properties and paying fair prices for them. . . .

"There are only two alternatives open to the people of North Alabama. The first is to build duplicate and competing plants with the delay involved in getting construction under way and with the expense of acquiring enough customers to insure financial success.

"We believe that the communities would get 100 per cent of the business because of the lower rates and because of the loyalty of the people of these communities.

"The results of this alternative clearly would be to render valueless the lines, poles, transformers, etc., which are now owned by the Alabama Power Company. This property is useful and has a value at the present time to the people of the community. The price which has, after extended negotiations, been finally fixed on this property of the Alabama Power Company, is a price fair to consumers and investors, and does not exceed the value of the property.

"The second alternative is the plan proposed by the Authority under which existing property is purchased at what it is worth."

July 17, 1934. "After continuous negotiations extending over a period of several months, an agreement has been reached between the Tennessee Valley Authority and the National Power and Light Company, owners of the Tennessee Public Service Company, whereby the company's electric property in eastern Tennessee is to be sold to the Tennessee Valley Authority. . . .

"1. The Tennessee Public Service Company will transfer to TVA all of its electric distribution and transmission facilities in East Tennessee, except the transmission line between Waterville and Kingsport, at a price of $6,088,000. This price coincides with the rate base of the property as determined by the Tennessee Railroad and Utilities Commission, less $700,000 deducted for property no longer used and useful, principally the steam generating plant located in Knoxville.

"2. The Tennessee Public Service Company will arrange for a tie-in for the interchange of power between the facilities to be acquired from TPS, and Carolina Company, also a National Power and Light Company. This interchange arrangement will insure TVA against any possibility of service interruptions due to storms or other causes and will permit both TVA and Carolina Company to make the fullest and most economical utilization of their power. In consideration of these interchange provisions, the Tennessee Valley Authority will assume the obligations and receive the benefits of an interchange contract between the Carolina Company and the Tennessee Public Service Company which has two years still to run.

"3. By the purchase of the TPS property, competition between the TPS and the City of Knoxville will be eliminated, and instead, the TVA and the City of Knoxville will acquire a going concern with more than 25,000 customers.

"4. The TVA policy will continue to be to confine itself primarily to generation and transmission, with local public agencies handling the distribution of electricity. The operation of the distribution facilities by TVA is specifically intended to be temporary, pending transfer to local public agencies. This purchase of distribution facilities is to prevent disastrous losses to investors in TPS arising out of the fact that the City of Knoxville itself was not in position to purchase the company as a whole.

"The contract between the City of Knoxville and the Public Works Administration whereby PWA has loaned funds for the construction of a competing plant, will be continued in effect until the transaction between TVA and TPS has been consummated. Such consummation depends upon approval by the City Council of Knoxville, and upon the willingness of bondholders to turn in their bonds at the issuing price of 96½, within three weeks. If by August 8th, the company has not been able to get the bonds in at this price, there is no deal, and the City will then proceed to make an award for a new plant, bids on which are to be opened today. I anticipate no such contingency, as the price is eminently fair to the bondholders, and has the approval of a committee of conservative institutional holders of these bonds.

"The system purchased from TPS supplies electric service to the City of Knoxville, to the fifteen communities in Knox County, including Fountain City, and to twelve communities in eastern Tennessee outside of Knox County, including Newport and Jefferson City. This area has a population in excess of 133,000."

August 1, 1934.

An address by John B. Blandford, Jr., Tennessee Valley Authority, Coordinator. Presented July 31, over NBC Radio hookup as one of the "You and Your Government" series on a New Deal in Government, under sponsorship of the Committee on Civic Education by Radio of the National Advisory Council on Radio in Education, and the American Political Science Association.

The Tennessee Valley Program

"One year ago, the three directors of the Tennessee Valley Authority held their first meeting in a hotel in Washington. Today, these directors in their offices

in the Tennessee Valley look back upon more than a hundred similar meetings, and the activity and accomplishment of nearly 10,000 fellow workers.

"Wilson Dam is turning out TVA kilowatts. Norris and Wheeler—are now one-fourth completed. Preliminary surveys are fixing the sites and determining the dimensions of future dams.

"A power policy has been formulated. The content of the 'yardstick' has been defined. Wholesale and resale rates have been fixed. The nucleus of a TVA power system has been established through the purchase of transmission and distribution facilities. A transmission line to connect Wilson, Wheeler and Norris dams is under construction. One hundred miles of rural transmission lines have been pushed out into new territory. Arrangements have been made to serve more than fifty municipalities at greatly reduced rates, and private power companies have been stimulated to substantial rate reductions in other parts of the Valley. . . .

"A dam is not an isolated structure or operating unit, but part of a unified development of a water system with power produced at half the cost of unorganized development, and with valuable by-products in flood control and navigation. A dam is the occasion for the planning of a region, and a series of dams is an integral part of the planning of a valley.

"Director David E. Lilienthal is buying power systems at fair prices and building lines where they do not now exist. He is accounting for his operations with full consideration for interest, depreciation, amortization and taxes, and thereby establishing a 'yardstick' for the nation. . . .

"Electric appliance prices have been beyond the reach of many householders. The Electric Home and Farm Authority, an agency of the TVA, was organized to meet this problem. . . .

"The Tennessee Valley Authority is a new and

significant piece of governmental machinery. It has all the powers of governm nt to enable it to do a unique job in regional planning, and it has the flexibility of a private corporation and freedom from red tape to do an efficient job of business operation."

August 7, 1934. This is a general release, announcing that TVA was sending David E. Lilienthal, director in charge of its electric program, and Llewellyn Evans, its chief electrical engineer, to England to study the "grid" system of transmission and distribution as developed there. It contains the following statements:

"The trip is the result of the Authority's effort to formulate the best procedure and policy for the allocation and distribution of future large blocks of power to be available. Purchase of the Knoxville system and distribution of TVA power in East Tennessee will exhaust the capacity of Wilson Dam until completion of Norris Dam. Mr. Lilienthal has been studying the problem from the point of view of recommending a course of action and policy, but before the Board made any decision regarding the allocation of future blocks of power to municipal and other applicants, it desired to study at first hand important world projects that parallel the Authority's problems."

October 2, 1934. This release which was a speech by A. E. Morgan at Madison, Wisconsin, contained the following statements:

"In three respects the Tennessee Valley Authority law is specific and definite. The power development at Muscle Shoals, lying idle for years through the obstruction of private power companies, must be put to work. The private power companies had been using this great plant as a standby plant, letting the power run to waste when they had plenty of their own,

and using it as an emergency supply when they were short. Such use of power should bring the very highest wholesale price, yet they were paying for it less than a fifth of a cent per kilowatt hour, and were retailing it at three cities within ten miles at more than thirty times as much. In this way the private power companies were receiving a subsidy of millions of dollars from the Government. No wonder they were deeply grieved and shocked at the proposal to discontinue the arrangement.

"The Tennessee Valley Authority Act directed the Authority to operate this plant, to build transmission lines, and to sell the power. The Authority has adopted a comprehensive power policy. To make a fair comparison between public and private operation, it is essential that the area served shall be comparable to that of a well proportioned private utility system. During the years when the Muscle Shoals plant was being used as a subsidy to the private utilities, these companies surrounded it with a net work of their private transmission lines, so that there is now no territory for it to serve unless it acquires existing systems or competes with them. It must sell electric power in this territory or give up its entire power program, and give up any opportunity to compare the effectiveness of public and private operation.

"The Authority has determined, if possible, to buy existing facilities at fair prices, and though hundreds of communities have asked for its service, and a considerable number have voted to buy power from the Authority, yet not a single competitive line has been built. Negotiations with private companies have been entered into in good faith, and contracts have been made for the purchase of transmission and distribution facilities. * * *

"A second specific provision of the Tennessee Valley Authority Act provides for the construction of additional dams and for the increase of power resources.

"Below the Norris Dam there will be about ten

dams on the main Tennessee River. The Tennessee varies greatly in flow between dry summers and wet winters, and the Norris Dam will so regulate the flow as to more than double the prime power at each of these dams.

"By developing the water power of the Tennessee River as a single great coordinated system, storing water in a series of headwater dams during the rainy season and releasing it to the dams down below during the dry season, power can be developed at far less expense than by independent projects, and at the same time the interests of flood control and navigation can be promoted. Only the Government can properly carry on so far-flung an undertaking. * * *

"For perhaps the first time in American history an all-round regional plan is being consciously worked out for a great area, aimed at the coordinated and integrated growth of a great region, dealing with water power, soil protection, fertility, minerals, forests, transportation, cooperative production and distribution, vocational training, health and education."

October 22, 1934.

An Address Delivered Before a Joint Meeting of the National Conference on City Planning and American Civic Association, Oct. 22, 1934, at St. Louis, Mo.

"Large Scale Regional Development"

By E. S. Draper

Director of Land Planning and Housing, Tennessee Valley Authority.

In the course of his discussion, Mr. Draper said:

"In the planning of a large region, which is the subject of this discussion and one which means the cutting across political lines, county and state, there is bound to be a lack of political implementation, using

the term in its right sense, on account of the fact that the American political system has constitutionally given the rights of administrattion in a large measure to the agencies of town, city, county and state.

"I would question whether any such regional agency could be successful, unless its set-up was such that an integral part of its activities were intimately and actively associated with the social and economic development of the region. * * *

"I believe the most successful method is the basis on which the Tennessee Valley Authority has been set up, whereby the whole program grows out of the development of natural resources for which it has the funds and the authority and is able to cut through state lines in proceeding with such developments.

"The planning of a large region cutting across state lines in seven states in the geographic region of the Tennessee River watershed involves more than the 42,000 square miles within the Valley. Fortunately the Act gives the right to plan beyond the geographic boundaries in such instances as the welfare of the region is affected.

"In connection with power, I interpret that to mean that wherever power can be transmitted from generating plants along the Tennessee River or its tributaries and the distance to which that power can be effectively transmitted, therein lies the area or region within the influence of our planning activities. It would certainly seem shortsighted to send power from Muscle Shoals to Birmingham, Alabama, from Pickwick Dam to Little Rock, Arkansas, from Aurora Dam to St. Louis, or Terre Haute, or from Norris Dam to Asheville or Cincinnati, without giving consideration to the relationship of such power transmission to the country transversed by the lines and the effect in the way of industrial activity, population changes and transportation and communication adjustments.

"So, any regional program must contemplate effects

outside of the region itself as a part of the planning procedure. * * *

"In the TVA we have an agency in which planning goes hand in hand with the basic development or extraction of natural resources. During the seventeen months that I have been connected with this undertaking I have had a gradually increasing respect for the power which planning may be able to exert in such a situation and the opportunity which exists for implementation. * * *

"To achieve the ultimate of the TVA Act, we must seek not solely the production of cheap power, or low cost fertilizer or any of the other desirable results of our varied program, but through wise planning to insure these instruments of a better regional economy reaching into the lives of all the people in a way as to benefit all who live in the region and those outside within the scope of influence. * * *

"The real purpose of the Tennessee Valley Authority is to provide a practical testing ground for planning in its large sense."

October 31, 1934.

Advance Text of Remarks of David E. Lilienthal Before the Birmingham Rotary Club, Birmingham, Alabama, October 31, 1934.

"Birmingham and the Tennessee Valley Authority Industrial Development Program."

(This release contained statements as to the plan and program of TVA, including, inter alia, the following:)

"The Tennessee Valley Authority, as you know, represents a broad conception of national policy and of regional development. There can be little doubt that the trend of the times is toward the policy of regional development with which TVA is entrusted. * * *

"Under the mandate of Congress, the Tennessee Valley Authority considers the stimulation of industrial development as one of its major functions and responsibilities. Without the development of industry in the Tennessee Valley region, the President's plan fails. I believe everyone recognizes this. . . .

"The Tennessee Valley Authority has set up an Industrial Development Division.

". . . . We believe it is appropriate that some of this technical and research work should be undertaken by TVA as an agency of all the people. Therefore, the Industrial Development Division has set up a specific experimental project looking toward the development of a stainless steel industry in the Tennessee Valley area. The development of this industry beyond the experimental stage will, of course, be in the hands of private industry."

November 5, 1934. Address by Dr. Arthur E. Morgan before the Democratic Women's Luncheon Club of Philadelphia.

This is a long speech, concerning the origins and general purposes of the TVA, and its general plans and objectives. Opening with a description of the general attitude of the President and the Administration (referred to as the "New Deal"), the speaker states that the President desired to use the TVA as an agency for social amelioration and for the relocation of some of the unemployed, and referring to the origin of the Tennessee Valley Act, says:

"That was largely the burden of the President's mind in establishing the Tennessee Valley Authority. In the minds of Congress, another thought was dominant. During the World War, a great power plant was built on the Tennessee River at Muscle Shoals, the Wil-

son Dam and power plant. Twice, Congress passed bills providing for government ownership and operation of that power plant. Twice such bills had been vetoed, by Coolidge and by Hoover. The temper of the American people was fairly well made up on that point.

"In his campaign speeches, President Roosevelt expressed himself this way. He said he did not approve the taking over of the power resources of America by the government. He said he did approve, however, of a limited number of projects which he called yardsticks of government ownership and operation, where it might be possible to make a fair comparison of government ownership and operation and of private ownership and operation."

It is then stated that the Tennessee River is an excellent place for such a project because of the existence of Wilson Dam, and because a development of the entire river under one control will produce "some of the cheapest hydroelectric power in America," whereas "taken independently, those power plants are of doubtful merit." The following statements, inter alia, are also made as to the general program and function of TVA:

"Now, there is a place where the facts of the case indicate the need of social and economic planning. That is one thing that the President is working for. Wherever there is a waste in American life, wherever we are throwing away our resources, there we want to bring about a New Deal by so organizing affairs that waste is eliminated and the full value of our undertaking is realized. We are doing that in the Tennessee Valley.

"The principle of a yardstick, of a comparison, has been established by Congress.

"Now, if we are going to have a case of public ownership, it must be somewhere, we must take an

area. That area must be on a large enough scale to be comparable with other power developments. It can't be a little corner that is too small to be efficient. A natural unit of production is the Tennessee River watershed. Nature has made that a unit. The natural unit of consumption is an area that would use that power.

"The policy of the Tennessee Valley Authority is this: to develop power as cheaply as it can be actually developed, paying good wages and meeting all actual costs, and to purchase from the private companies an area large enough to distribute that power. The law provides that we can build competing lines against private companies. In the past year, hundreds of communities have petitioned us to supply them with power. But we have not built one mile of competing line. We have waited, we have dealt with the private companies, we have undertaken to buy their facilities at a fair cost, and only as that has been possible have we gone into the power business ourselves.

"Now we have taken over a few towns. There is a campaign put on by those who try to prevent us from establishing a yardstick, that is obstructing the program.

"At Tupelo, Mississippi, we have been furnishing power for about eight or nine months at about half the rate charged before.

"It is in ways like these that the Tennessee Valley Authority is a laboratory. We are trying to find out how to take this wreckage of rugged individualism and make an orderly economy out of it. If the government is going into business as we are going into the power business, we must be efficient or we had better keep out.

"If the government is going into business, then it's got to do business in a businesslike way.

Other parts of the TVA program with reference to pre-

vention of soil erosion, reforestation, location of small industries, and balancing of agriculture and industry, are described.

November 19, 1934. A general release announcing that TVA would purchase the property of Southern Industries and Utilities Company constituting the site of Aurora Landing Dam, at a valuation to be fixed by the Federal Power Commission. It is stated that the action follows a protest entered by TVA to the granting of a license for the construction of the dam by the Federal Power Commission, which had theretofore granted a preliminary permit.

December 13, 1934. "The Tennessee Valley Authority and Farm Electrification."—Address of David E. Lilienthal before National Convention, American Farm Bureau Federation, Nashville, Tennessee, December 12, 1934.

Beginning by describing the concentration of the population in cities and the decline of farm income in recent years, this release contained a detailed description of the rates, number of customers, revenues, and form of organization whereby TVA supplied electricity to rural areas in Alcorn County, Mississippi, and Lauderdale County, Alabama, and to the cities of Tupelo, Mississippi, and Athens, Alabama; description of the benefits to farmers from the use of electricity, statements as to the failure of private utilities to supply electricity to rural areas, and statements as to the plan and program of TVA, concluding with the statement that the task of electrifying the farms of the United States can be made effective only with the aid of the national government.

2-c. A record has been obtained of the energy used for

operating the navigation facilities at Wilson Dam from the time of the completion of the locks to the present date. The record is as follows:

1926 to 1930	490,000 KWH
1931	115,370 KWH
1932	95,790 KWH
1933	131,620 KWH
1934 to date	140,000 KWH.

It is estimated that increase in traffic on the river in future years will make necessary an ultimate consumption of energy per annum to operate the navigation facilities in the Muscle Shoals section as follows:

Wheeler Dam	400,000 KWH
Wilson Dam	225,000 KWH
Lock and Dam No. 1	55,000 KWH
Total per annum	680,000 KWH.

3-a. The entire energy per annum, primary and secondary, obtainable from the coordinated operation at Wilson, Wheeler and Norris Dams during a year of minimum (1925) river flow, for present or immediate contemplated, installed capacities at each plant is 1,620,000,000 KWH for primary, and 230,000,000 KWH for secondary, at an assumed load factor of 100%. It has been assumed that evaporation, leakage and similar losses total 10% of the flow at all times. In addition, we have assumed that all reservoirs would be at the same level at the beginning of the minimum year as they would be at the end. The installed capacities are 184,000 KW at Wilson, 100,000 KW at Norris, 32,000 KW at Wheeler, and at each plant the overall efficiency was assumed to be 83%.

6-a through 6-c. The copy of the contract dated August 9,

1934, attached to the Bill of Complaint as Exhibit No. 6 is a correct copy.

6-d and 6-e. We have entered into contracts to supply certain municipalities with power.

6-e. The following summarizes one of the contracts entered into:

Power Contract between Tennessee Valley Authority and Alcorn County Association, dated June 1, 1934. This contract recited that TVA owns or has under construction or option to purchase from the Mississippi Power Company "certain properties and facilities for the distribution of electricity in Alcorn County, State of Mississippi;" and that the Association desired to acquire by purchase or lease certain of said properties and to operate them in the distribution of electricity on a membership basis and without profit, and to purchase from TVA at wholesale power for use in its operations. The agreement contemplated the sale or lease of the facilities in Alcorn County to the Association "used or useful in distributing electricity at retail in Alcorn County," also a lease for fifty years of rights of way and easements of the United States entrusted to TVA "used or useful in distributing electricity at retail in Alcorn County." Covenants were included as to the security for the obligations to TVA assumed by the Association.

The power contract was to continue in effect for 20 years. The contract called for the supply by TVA of the entire power requirements of the Association for its own use and for resale, and contained provisions as to the nature and place of delivery of the energy, for increase in the demand after notice from the Association, as to the point of delivery, for the payment by the Association to TVA of $114,632.62 for the property which TVA or the United

States was to convey or lease to the Association, together with interest at 3½% per annum.

The TVA agreed to construct rural lines within its discretion up to 100 miles, and to convey or lease the same to the Association, which agreed to pay TVA the actual cost of the lines, not to exceed $125,000 without its written consent.

The Association agreed to pay to TVA on its indebtedness until liquidated all membership fees received by the Association, with certain exceptions; also all surplus revenues.

The agreement provided for the disposition of the Association's revenues in accordance with the requirements of the contract, which provided that surplus revenues after the satisfaction of the indebtedness to TVA and the United States should be used either to reimburse members for the value of their membership or to reduce rates. The Association agreed not to alienate or encumber the property or revenues without approval by the TVA, and also provided as to maintenance and insurance of the properties.

Rate schedules were attached, according to which TVA was to be paid for the electricity sold to the Association, and also schedules fixing the resale rates "in order to carry out the obligations of TVA with respect to the promotion of a wider use of electricity throughout the area in which it operates, in order to further the purposes of civic improvement for which the Association was organized, and as further security for the indebtedness of Association to Authority" the Association agreed not to depart from those resale rates except with the written consent of TVA, which reserved the right to prescribe additional resale schedules for special classes of members or special uses of electricity, and the Associa-

tion agreed to be bound thereby. It further provided that if the rates proved too low for efficient operation TVA would consent to a change in rates upon application by the Association. Provision was made as to the terms of membership in the Association and as to the basis of charges for non-members. Rules and regulations prescribed by TVA were adopted as part of the agreement. TVA agreed to render advisory services to the Association in problems of personnel and administration, to secure the assistance of its district engineer at meetings of the Board of the Association, and to make available to the Association the facilities and services of the TVA personnel division. The Association agreed that it would not employ or retain in its employ any person deemed by TVA not to qualify for his position, or whose services TVA may deem to be unnecessary.

The agreement also provided for various other operating details, including reports, and states that the policy of the contracting parties is to render each other the fullest cooperation.

The text of the contract in full is set out in the Appendix to this statement.

Contracts between the Tennessee Valley Authority and City of Amory, Mississippi (March 9, 1934), City of Athens, Alabama (April 6, 1933), City of Dayton, Tennessee (September 12, 193..), City of Decatur, Alabama (March 14, 1934), City of Florence, Alabama ( ), City of Knoxville, Tennessee (March 1, 1934), City of New Albany, Mississippi (September 13, 1934), Town of Pulaski, Tennessee (March 8, 1934), City of Russellville, Alabama (March 13, 1934), City of Sheffield, Alabama (March 14, 1934), City of Tupelo, Mississippi (November 13, 1933), and City of Tuscumbia, Alabama (March 14, 1934).

The forms of these various municipal contracts and the general provisions are identical or substantially similar, differing somewhat from the form of Cooperative Association contract above set out. The text of the contract with the City of Tupelo, Mississippi, is set out in the Appendix.

11-h. In reply to this interrogatory, as to correspondence between TVA and the office of Federal Emergency Administration of Public Works relating to loans to municipalities in Alabama for the purpose of constructing electric utility systems, TVA set out a letter dated November 17, 1934, from Henry T. Hunt, Chairman of Electric Power Board of Review (Federal Emergency Administration of Public Works) to the defendant David E. Lilienthal, Director and General Counsel of TVA, asking to be advised as to the developments in the matter of TVA's option to purchase Alabama Power Company's properties, and requesting a list of the towns, and to be advised "how this and other recent developments will affect the attitude of TVA towards applications now before PWA for electric projects in the area." The following was the reply of TVA, by David E. Lilienthal:

"Knoxville, Tennessee,
November 22, 1934.

Hon. Henry T. Hunt,
Chairman, Electric Power Board of Review,
Federal Emergency Administration of Public Works,
Washington, D. C.

Dear Mr. Hunt:

I have your letter of November 17 regarding the fourteen North Alabama towns. A list of the towns follows:

Courtland	Red Bay
Decatur	Sheffield
Falkville	Town Creek
Florence	Tuscumbia
Hartselle	Cherokee
Leighton	Russellville
Moulton	Rogersville

As to the TVA's attitude toward applications now before PWA for electric projects in this area: If the transfer of these properties by purchase can be effected in the reasonably near future, then it is the express position of these communities, as our records indicate, that PWA loans will not be utilized to carry out the mandate of their electorate for the acquisition of a distribution system. If, however, the purchase transaction is blocked and indefinitely delayed by tactics which have been heretofore employed, then it may well be that the communities will not desire to wait indefinitely but will take the position that they desire to construct their own distribution systems.

We will advise you promptly as to developments in this proceeding. The Alabama Commission has taken under advisement the matter of approving the sale by Alabama Power Company to TVA. The other day Judge Grubb of the Federal Court denied a temporary injunction against the transfer petitioned for by certain stockholders of the Alabama Power Company. I will keep you advised of developments.

Very truly yours,
Tennessee Valley Authority
By David E. Lilienthal
Director and General Counsel."

On June 19, 1934, W. L. Farr, Mayor of Tuscumbia, Alabama, wired Lilienthal advising that the Carmichael Act had been declared valid by the Supreme Court, and

asking "May we expect you to negotiate purchase existing distribution system or shall we proceed with application for loan from PWA?"

On June 20, 1934, Lilienthal wired Mayor Farr as follows:

"Knoxville, Tennessee
June 20, 1934

"Mayor W. L. Farr
Tuscumbia Alabama

"Replying your wire in which you inquire if TVA will negotiate purchase existing distribution system or whether City should proceed with application for loan from PWA. For several months TVA actively considering purchase existing distribution systems in Northern Alabama. such cities later to repurchase from TVA systems including rural without issuance of bonds and solely out of electric revenues. This program was intended to eliminate delays and uncertainties involved in PWA situation and obviate duplication of distribution systems and expensive competition. Negotiations with Alabama Power Company for option on distribution system facilities throughout Northern Alabama by TVA thus far unsuccessful because we find price fixed by company in excess reasonable value of property considering depreciation. Due to this failure of negotiations undersigned conferred June thirteenth with Administrator Ickes and General Counsel Hunt of PWA. Expect further work from PWA June twenty first. Regard inability to buy existing facilities most unfortunate but see no alternative for cities but to press PWA applications. Unless pressure occasioned by passage additional appropriation prevents desire to spend several days conferring with you and other responsible parties in Northern Alabama early as possible. Your fine assurance

of cooperation in advancement of entire Valley deeply appreciated.

David E Lilienthal."

Correspondence was also produced between the Federal Emergency Administration of Public Works and TVA inquiring whether TVA could serve the City of Hartselle in the event that a PWA allotment should be made to Hartselle for the construction of a distribution system. The letter discusses the question whether the Alabama Power Company could be compelled to serve the proposed municipal distribution system, and concluded "However, if TVA can supply the City with power upon completion of the project it will not be necessary for us to go into this question." TVA replied under date December 28, 1934, that TVA "can supply the City of Hartselle with power upon completion of the project which it now has under way."

Correspondence was submitted between the City of Florence and Lilienthal in relation to the question whether the City should attempt to buy the Alabama Power Company's distributing system or go forward with the application for loan from the Public Works Administration for construction of the municipal system. The plan for acquiring the existing system was stated by Mayor Lee Glenn to be "a last alternative to be used in the event that you fail to secure a release of the loan from the Federal Emergency Administration of Public Works."

On March 10, 1934, Lilienthal wired Mayor Glenn to forward the plan to him in Washington in time for a conference to be held between Lilienthal and Secretary Ickes.

13. In answer to this interrogatory, requesting TVA to attach a copy of its operating budget, its budget for capital expenditures, a statement of its operating revenues and

expenses, and as to the amount set aside for construction of generating plants, transmission lines and distribution systems, the TVA set out in its answers a report entitled "Estimate of Appropriations Fiscal Year Ending June 30, 1936 (Revised November, 1934)." This document is set out in full in the Appendix.

The document is prefaced by a statement entitled "Justification, Tennessee Valley Authority Budgetary Request," stating that the general purposes of the Tennessee Valley Authority are as follows:

> 1. Unified development and control of the water resources of the Tennessee River and its tributaries through the construction of dams to provide navigation, control floods, and produce power.
>
> 2. Utilization of the power resources as a yardstick in determining the relative costs of public and private power operation, and distribution of this power to the greatest number of people.
>
> 3. Experimentation to lower the cost of production, distribution and application of the major elements of plant food.
>
> 4. National planning for a complete river watershed, including erosion control, afforestation, the further use of mineral resources, the promotion and coordination of industry and agriculture, surveys and plans for the proper use of land, and the general social and economic well-being of the Valley.

This "Justification" thereupon proceeded to describe the progress of the work under construction on Norris and Wheeler Dams, and included the following statements:

> "A power policy has been formulated. Wholesale and retail rates have been fixed. The nucleus of a TVA power system has been established through the

purchase of transmission and distribution facilities. One hundred miles of rural lines have been constructed. Arrangements have been made to serve more than fifty municipalities and private power companies have been stimulated to substantial rate reductions. Low cost electric appliances have been made available through regular retail dealers by the Electric Home and Farm Authority in cooperation with manufacturers. In Tupelo, the first city to use Muscle Shoals power, low rates and low cost appliances have increased the use of electricity one hundred percent over last year. Similar increase is in evidence elsewhere.

"The budget request for 1936 provides for the continuation of the above program: Norris and Wheeler Dams will be completed. Two additional dams are proposed as navigation and flood control projects, and as a means of providing additional employment. Electrical properties acquired or constructed in 1935 will be operated and will provide additional revenues. Further steps will be taken to round out the electrical system and to increase the use of electricity."

The budgetary request or estimate contained a summary of all of its programs, divided into Water Control, Electricity, Fertilizer, Regional Development, Administrative in General, Service Activities, aggregating for 1936 $57,169,954; for 1935, $67,550,023; and for 1934, $12,365,175.

Under Water Control were listed Norris, Wheeler and Pickwick Landing Dams, and an undesignated "tributary dam or dams," and "main river dam."

The Electricity program for 1936 is sub-divided into Planning and Development, Administrative and Equipment, Engineering and Design, Operation of Power Plants ($608,000), Mississippi Division Operation, Alabama Division Operation, Tennessee Division Operation, and Construction and/or Acquisition ($13,211,400). This summary indicated revenues for 1936 from the operation of the elec-

tricity program of $4,600,000. The summary set out the expected cost of operating the respective steam and hydro plants, and indicated the revenue to be expected from wholesale sales, indicated $770,000 of revenue expected from the Mississippi Division, $800,000 from the Alabama Division, and $2,630,000 from the Tennessee Division.

Under the subdivision Construction and/or Acquisition under the Electricity Program, the estimate indicated that ..... items of classifications of expenditure, including transmission lines, substations, power plant and facilities to serve tributary dam, service connections with industries, increasing the generator capacity at Wilson Dam, high tension circuits and equipment, transformers, new rural lines in Mississippi, service extensions and connections, voltage regulators, rural lines in Alabama and Tennessee, the purchase of properties of Tennessee Public Service Company, of Tennessee Electric Power Company, Alabama Power Company, new service extensions and connections, communication circuits, interconnection circuits, the construction of a 110 KV line from Wilson Dam to Tupelo, industrial lines and extensions in Alabama and Tennessee, miscellaneous high tension lines and substations ($4,250,000), and concluded with the following item:

> "Purchase of Additional Transmission System, $5,017,000."

Under the estimate for the Fertilizer Program were included $1,940,000 for the operation of an electric fertilizer plant, construction of additional furnaces, etc., aggregating $4,010,000 for 1936, and indicated expected revenues from fertilizer operations of $1,340,000.

Under the item Administrative and Equipment is included, among others, "Sales Promotion, $100,888 (1935)."

Under the heading Regional Development Program were

included $1,500,000 under the caption "Industry," $805,000 under Agriculture, $300,000 under Social and Economic, and $2,200,000 under Norris area development, etc. This $1,500,000 of industrial development included for the year 1936, $700,000 for research, $180,000 for surveys and promotion of industries, $50,000 for industries and power market studies, etc.

The estimate contained the breakdown under the respective headings Engineering, Planning and Geology, Forestry, Social and Economic, and Land Planning, including among others, $100,000 for research in social studies, an archeological survey, planning mountain regions, etc. The summary also included $40,000 of indicated expenditure under the heading "Materials and services to EHFA and others."

14. In answer to this interrogatory the Tennessee Valley Authority stated that the copy of the contract dated January 4, 1934, attached to the bill of complaint as Exhibit No. 5 was a correct copy of such contract, except for the fact that it does not contain some of the exhibits thereto. (The omitted exhibits to the contract referred to were introduced in evidence upon the trial of the cause as Plaintiffs' Exhibit No. 31). Also that the copy of the amendatory contract of February 13, 1934, attached to the bill of complaint as Exhibit No. 5-a is a correct copy.

23-e. In answer to an interrogatory, the Tennessee Valley Authority answered that the copy of the agreement attached to the Bill of Complaint as Exhibit No. 10 was a correct copy of an agreement between EHFA and Alabama Power Company.

24. In answer to this interrogatory, Tennessee Valley Authority stated that the excerpts attached to the Bill of Complaint as Exhibit No. 11, relating to the EHFA ap-

pliance promotion program, were correct copies of such excerpts.

28. In answer to interrogatories as to its corporate functions, TVA set out its departmental organization. The Electric Department indicated a steam power generation division, hydraulic power generation, internal combustion generation, transmission, distribution (city and rural), utilization, commercial, new business, and general office. The statement set out the production expense by plants, breaking them down into hydro-electric plants, steam plants, and internal combustion plants.

Among the activities scheduled under the Industrial Division were shown to be 44 employees, and were included the following captions:

> "Number of representatives of industrial companies canvassed with a view to locating plants in the Tennessee Valley."
>
> "Number of companies which have established branches in the south or moved to the Tennessee Valley as a result of representations made by TVA Industrial Division employees."

In the analysis of the production cost of electric plants, division is made between production for commercial use and non-commercial use, and the figures are set out for the operation of the steam stand-by plant at Tupelo, Mississippi, having a plant generating capacity of 3,500 KW.

48. In answer to interrogatories, TVA stated that it plans to connect all of its plants together. The Wilson-Norris transmission line is again under construction after a postponement for completion of studies relating to the stability of the line and system when tied to the network of the private companies in the area within transmission

distance of the Norris and Wilson power plants. The total expenditures to date upon the Wilson-Norris transmission line amount to $954,993.16.

59-f. In answer to this interrogatory, as to whether TVA has made any survey or study of the existing available electric capacity serving the Tennessee Valley area, of the surplus capacity in excess of the market, and of the heavy increase in surplus capacity which will result from the electric installations proposed by TVA, the Tennessee Valley Authority stated that it had made such studies, but that none had been completed or adopted by the Authority; and that the Authority denies that there is any real surplus.

60-d. In answer to the interrogatory reading as follows:

> "Is it or not a fact that it is the combination of dams, as proposed and testified by said A. E. Morgan, that makes the TVA proposed power development 'profitable',"

the Tennessee Valley Authority made the following answer:

> "It is a fact that a combination of dams as proposed and testified to by A. E. Morgan is the only practical way in which the purpose of the Act of Congress to bring about the coordinated development of the Tennessee River and its tributaries for navigation, flood control and national defense, can be carried out without substantial waste of natural resources. Since certain amounts of power will necessarily be generated in such development, if the use of the word 'profitable' is interpreted in this way, the statement is strictly true."

85-d. In answer to an interrogatory requiring TVA to state the circumstances of the employment of Young & Rubicam, the TVA attached the contracts with TVA dated

April 11 and April 21, 1934, by which the latter (Young & Rubicam) undertook to design an emblem or symbol for TVA, and also to perform the services contemplated by the following recitals in the agreement:

> "Whereas, the Authority in order to perfect its plant for the marketing of power, to assist its municipal customers in the most efficient way of increasing their consumption of power, to assist in reducing the distribution costs of electrical appliances in localities served by the Authority's customers, and to formulate plans for the general program of increasing the use of electricity and electrical appliances, requires the personal services, for the term hereinafter stated, of expert advertising consultants, thoroughly qualified to furnish for these purposes expert technical advice and counsel of personal, individual and confidential nature, and
>
> Whereas, the Consultants are peculiarly equipped and qualified by their technical training, special experience, and personal responsibility to render the type of service required, and are prepared to do so upon the terms herein set forth."

Young & Rubicam agreed to render expert technical service "in connection with the creation, laying out, planning, supervision and carrying out of a general advertising and sales promotion program, designed to secure the results above stated." Young & Rubicam were to act "as an Advertising Department for the Authority" and supply it with a comprehensive promotion and advertising plan, including recommendations for an advertising and promotional office for the EHFA.

Young & Rubicam were to prepare all advertising data, copy and radio and other programs, and in general, prepare and submit a promotional sales plan. The compensa-

tion of Young & Rubicam was to be $10,000 plus specified expenses.

85-i. In answer to this interrogatory, it was stated that the individual defendants have been aware of the major outline of the publicity program of Electric Home & Farm Authority, Inc., and have as the Board of Directors approved said program.

85-j. In answer to the interrogatory reading as follows:

> "Has TVA repudiated any of the statements or publicity of said EHFA?"

TVA made the following answer:

> "The Tennessee Valley Authority has no authority to repudiate statements of Electric Home & Farm Authority, Inc."

88. In answer to this interrogatory, inquiring as to the employment of the engineering firm of Jackson and Moreland (Boston, Mass.) by TVA to advise with reference to its power system, TVA advised that Jackson and Moreland were employed as consulting electrical engineers. The nature and purpose of the employment was evidenced by a written proposal from Jackson and Moreland dated June 21, 1934. The undertaking was to do the work "necessary to a solution of the electrical stability problem involved in the design of your (TVA's) transmission system as at present contemplated and the interconnection of that system with the existing transmission systems in the area. This included the determination of the economic transmission voltage "in the ultimate and initial development," determination of the equipment characteristics to be installed at Wheeler and Norris Dams, and the determination of general interconnection facilities.

The character of the instructions to Jackson and Moreland appear from a memorandum of conference between TVA and representatives of surrounding utility systems held July 19-20, 1934.

It was assumed at this conference, as shown by the report, that the TVA system would operate as a part of an interconnected network, and that the analysis of the TVA system would provide the engineering data upon which the necessary interchange contracts should be based.

It was contemplated that the analysis should indicate the load division expected for the system under various operating conditions, to be prepared on the basis of 1936 load conditions, with hydro electric installations on the TVA system contemplated in the initial operation, and that in addition, an additional analysis should be prepared "under the load conditions predicted fór 1940, with the TVA hydro electric development contemplated for the same date."

It was assumed as a basis for the study that the TVA's estimated load from the Fall of 1936 to the Spring of 1937 would contemplate 95,000 KW of firm capacity, apportioned as follows:

20,000 KW for distribution in Mississippi and Alabama; 40,000 KW for Knox County, Tennessee; 20,000 KW for large industries to be located adjacent to or served from Wilson Dam; and 15,000 KW as the fertilizer load at Wilson Dam.

The fertilizer load was assumed to be held to 15,000 KW of prime power over the peak of an assumed dry year, expanding to 30,000 KW during off-peak conditions.

The study was to analyze the requirements for the transfer of power between Wilson, Norris and Wheeler Dams, under various assumed transmission line conditions.

In order to determine the economic system voltage and

electric characteristics it was deemed necessary to analyze probable load conditions at a date beyond 1936 (the start of operation on Norris and Wheeler). For this purpose the year 1940 was selected.

Analysis was also to be made on the assumption that the TVA firm power above what was denominated TVA "operating area" load would be transmitted to market respectively from Norris and Wilson Dams. It was asserted that when this amount of water power is transmitted out of the area from Norris, "appropriate modifications in the amount of operating generating capacity on the Appalachian system (or its interconnected northern neighboring system) will be made to reflect the absorption of this power in their area." The assumptions in relation to the transfer of power from Norris Dam and from Wilson Dam to Norris included the transfer of 40,000 KW from Norris to Coal Creek and Knoxville, 50,000 KW from Norris to Wilson, 30,000 KW from Wheeler to Wilson, 65,000 KW from Wilson Dam to Birmingham, and 45,000 KW from Wilson Dam to Nashville, 15,000 KW from Wilson Dam to Norris, 35,000 KW from Wheeler to Norris, etc.

Report was made at the conference that "The Commonwealth & Southern load predictions indicate that in the year 1940 no firm capacity beyond the ability of their present stations will be required.

100. In answer to this interrogatory, the Tennessee Valley Authority set out the following table, showing the amount of water in cubic feet necessary to fill the respective proposed navigation locks on the Tennessee River and its tributaries to the pool levels, and the time required for such filling, viz.:

Project	Volume in Cubic Feet	Time to Fill
Aurora Landing	4,054,000	15 minutes
Pickwick	4,280,000	15 minutes
L. & D. No. 1	61,000	8 minutes
Upper Wilson	897,000	15 minutes
Lower Wilson	922,000	15 minutes
Wheeler	1,205,000	18 minutes
Coles Bend Bar	747,100	15 minutes
Widows Bar	111,000	12 minutes
Hales Bar	689,000	15 minutes
Chickamauga	1,248,000	18 minutes
White Creek	1,542,000	20 minutes
Coulter Shoals	1,494,000	20 minutes

101 and 102. In answer to an interrogatory referring to the public statement by the defendant Arthur E. Morgan as to the potential capacity in hydro electric power of the Tennessee River basin, the Tennessee Valley Authority presented an exhibit to the effect that the investigations by the U. S. District Engineer indicate that the total firm power which may be developed with the aid of steam auxiliary plants is approximately 3,000,000 KW, or 4,000,000 H. P.; that a comprehensive system of developments which would utilize the entire fall of the main stream and the greater part of the fall of the principal tributaries includes 149 power developments; that this system, with steam auxiliaries, could produce 2,949,200 KW of firm power at the high tension bus bars of the stations, with a 50% load factor; that the projects investigated will develop 25,000,000,000 KW per annum, of which one-half can be developed on the main stream. Of this total capacity of 2,949,200 KW, 773,200 KW would result from auxiliary steam plants; that this power would be developed in seven states, Tennessee, Virginia, North Carolina, Georgia, Alabama, Mississippi and Kentucky.

It was further stated that of the total base capacity potential in the Tennessee River basin of 3,466,366 KW, 410,000 KW had been developed. The State Geologist of Tennessee was quoted as asserting that the complete development of the Tennessee River system alone would yield over 5,000,000 H. P. (3,730,000 KW).

It was specifically pointed out in the answer to the above interrogatory that the above statements relate to the total potential water power in the basin with the use of auxiliary steam plants and not to any planned or proposed system of dams.

At this point the plaintiffs offered in evidence certain of the answers of the defendant Electric Home and Farm Authority, Inc. to the interrogatories propounded to it by the plaintiffs. In accordance with the equity rules the defendant Electric Home and Farm Authority, Inc. had at the time said interrogatories were served upon it, filed objections in writing to each of the interrogatories, answers to which were offered in evidence. Said objections were overruled by the Court, to which ruling the defendant Electric Home and Farm Authority, Inc. duly reserved an exception. At the time that said answers were offered in evidence the defendant renewed its objections to the admissibility in evidence of the same upon the ground that the offered evidence was immaterial and irrelevant. The objections were overruled by the Court and the defendant reserved an exception to each ruling of the Court upon each separate objection to the answers offered in evidence. The information contained in the answers is summarized as follows:

The copy of the contract between Electric Home and Farm Authority and Alabama Power Company attached

to the bill of complaint as Exhibit 10 was identified as correct.

It was stated that the Board of Directors were the same as the Board of Directors of the Tennessee Valley Authority.

It was stated that nine different forms of advertising dodgers or pamphlets had been printed by EHFA or TVA in the promotion of the sale of electrical appliances; that a total of 684,250 copies of these advertising dodgers had been printed and 666,686 mailed or distributed.

It was stated that EHFA had dealer contracts with ninety-six named dealers throughout the State of Alabama.

Attached to the answers was a copy or sample of each of the nine forms of advertising dodgers and pamphlets referred to. These pamphlets and dodgers may be briefly described as follows:

1. A pamphlet entitled "Electric Home and Farm Authority Electric Exhibit, James Building, Chattanooga, Tennessee." This is a description of the exhibit of electrical appliances in permanently demonstrating the application of electricity to the home and farm. This pamphlet contains a section generally descriptive of the Tennessee Valley Authority containing a quotation from President Roosevelt's message to Congress and quotation from the power policy of the TVA.

2. A dodger apparently distributed in Amory, Mississippi, announcing that "The Electric Home and Farm Authority's TVA Electric Kitchen" will visit Amory and give demonstrations of household electric equipment. This dodger was stamped with the emblem appearing on all of the literature, consisting of a blue fist holding a red bolt of electricity under which are the letters "TVA" in red

and under these letters the words "Electricity for all" in blue.

3. A small pamphlet containing the same emblem descriptive of "TVA's Electric Kitchen" and announcing its itinerary through North Mississippi.

4. Another small pamphlet in bright colors containing the TVA's emblem with the legend on the outside "Approved by Your Government".

5. A large folder containing some sixteen pages of photographs of TVA's activities, dams and power-houses and of various articles of domestic electric equipment together with a pictorial map of the Tennessee Valley area showing the various dams under construction by TVA as well as proposed dams with the legend "This map shows why the production and distribution of electricity is a public business", with matter descriptive of the Tennessee Valley Authority's power and flood control program. The photographs are interspersed with statements descriptive of the advantages and luxuries of wider use of electricity in the home and on the farm with emphasis on the necessity for cheap electricity.

6. Another small pamphlet containing a colored emblem and descriptive of the Electric Home and Farm Authority's appliance program.

7. A large cardboard placard with the TVA emblem in a wide circle on a blue background with the legend "Official Dealer in Electrical Appliances Approved by Electric Home and Farm Authority."

8. A large placard announcing the opening of the EHFA Electric Exhibit in Chattanooga.

9. A large multi-colored placard showing electrical appliances superimposed on the TVA emblem as a background calling attention to TVA's Electric Kitchen.

Plaintiffs introduced in evidence (Pl. Ex. No. 30) an excerpt from the budget of United States Government for the fiscal year ending June 30, 1936, being the budgetary statement accompanying the President's budget message dated January 3, 1934, attaching the budget for the fiscal year ending June 30, 1936 of the Electric Home and Farm Authority, Inc. to the following effect:

> "A corporation organized pursuant to Executive Order No. 6514, dated Dec. 19, 1933, under authority of the National Industrial Recovery Act of June 16, 1933, and financed by an allotment of $1,000,000 authorized by said Executive Order and made by the Federal Emergency Administration of Public Works on Jan. 5, 1934, for the purchase of 10,000 shares of stock at the par value of $100 per share."

Then follows a tabulation of estimates of obligations for the years 1936, 1935 and 1934 by objects.

	1936	1935	1934
Personal services, Departmental and field, net...	$ 99,340.00	$ 61,064.00	$3,537.00
Other obligations —grand total ..	4,404,840.00	1,321,062.00	7,445.00
The principal item of the total other obligations was for the purchase of contracts ...	4,000,000.00	1,000,000.00	.....
1934 allotment available in 1935.....			— 992,555
Received by transfer from Federal Administration of Public Works.....			—1,000,000

This tabulation also shows deduction of operating receipts for 1936—$950,000 and in 1935—$100,000; 1936 minus loans from banks $3,454,840; 1935 minus $219,207.

Plaintiffs introduced in evidence as plaintiffs' Exhibit 31 the exhibits to the contract of January 4, 1934, between the Tennessee Valley Authority and the Commonwealth and Southern Corporation and its subsidiaries which appears as Exhibit 5 to the bill of complaint, and which exhibits are summarized as follows:

Exhibit A to said contract of January 4, 1934 is inventory of property to be conveyed to the Tennessee Valley Authority by Mississippi Power Company and consists of merchandise and supplies located in 18 towns in Mississippi; steam generating plants located at Corinth and Tupelo; oil engine generating plants located at Blue Mountain and Myrtle, all in Mississippi; transportation equipment consisting of 8 trucks; furniture, fixtures and tools located in 9 towns in Mississippi; city distribution and rural systems located in 31 cities, villages and communities in Mississippi and rural lines extending from certain of the city distribution systems; non-operating property consisting of one lot located at Nettleton and one lot located at Baldwyn in Mississippi; 11 rural distribution systems; 13 transmission and distribution lines aggregating 56.4 miles of 44 KV transmission lines; 45.5 miles of 22 KV transmission lines; 115.9 miles of 13.2 KV transmission lines and 14 substations. Sheet 10 of said Exhibit A is a map showing the territory allocated to the Tennessee Valley Authority by said agreement in the 9 counties in northeast Mississippi, viz: Tishomingo, Alcorn, Tippah, Union, Prentiss, Pontotoc, Lee, Itawamba, Monroe.

Exhibit B to the contract of January 4, 1934 is an inventory of the property to be conveyed to Tennessee Valley Authority by Alabama Power Company, a description of which is set out in Exhibit 1 to the Bill of Complaint. The inventory describes the various classes of property together with their present replacement value as of December 1, 1933, as follows:

3 primary stations with replacement value of $249,750.00
8 44 KV transmission lines, aggregating 118.4 miles, with replacement value of... 545,026.00
21 44 KV substations with replacement value of 385,763.00
18 rural distribution systems with replacement value of 481,295.00

Also attached to Exhibit B is a list of urban distribution systems in the eleven towns which were later covered by the contract of August 9. The Exhibit sets out the present replacement value as of December 1, 1933 of these urban distribution systems as $1,516,284.00.

Also attached to Exhibit B is a map showing the territory in Northwest Alabama allocated to Tennessee Valley Authority by said agreement, covering all of five and a portion of two other counties, viz: Lauderdale, Colbert, Franklyn, Lawrence, Limestone, Morgan and Cullman.

Exhibit C to said contract of January 4, 1934 is a list of lands at Joe Wheeler Dam site to be conveyed to the Tennessee Valley Authority by Alabama Power Company, viz: 1,643 acres for $289,505.

Exhibit D to said contract of January 4, 1934 is an inventory of property to be conveyed to Tennessee Valley Authority by the Tennessee Electric Power Company, consisting of 66 KV transmission lines, telephone lines, 11 KVA lines, primary substations, distribution substations and distribution systems. A map is also attached showing the territory allocated to the Tennessee Valley Authority by said contract in five counties in Northeast Tennessee. (Pl. Ex. 31)

The By-Laws of Electric Home and Farm Authority, Inc., were introduced (Pl. Ex. No. 45) stipulating that

the United States is the sole stockholder in accordance with its certificate of incorporation and pursuant to the executive order of the President of the United States, No. 6514 issued December 19, 1933 authorizing its creation and providing for the subscriptions to its capital stock. A correct copy of this executive order is attached to the original bill of complaint as Exhibit No. 8. The By-laws further provide that all voting rights in the corporation "are to be exercised on behalf of the United States by the Directors of the Tennessee Valley Authority jointly or by such person or persons as the said directors . . . shall appoint . . . the election or appointment of directors of the corporation shall be subject to the approval of the President of the United States.

The following excerpts from the respective minutes of the Electric Home and Farm Authority, Inc. were introduced (Pl. Ex. No. 45-A):

> "Mr. Lilienthal was authorized to employ G. D. Munger as Sales Promotion Manager at a net salary of fifty-one hundred dollars ($5100.00) per year. Mr. Munger's services are to be available to both the Tennessee Valley Authority and the Electric Home and Farm Authority, Inc." (March 14, 1934)
>
> . . . . . .
>
> "Upon the recommendation of David E. Lilienthal the Board unanimously adopted the following resolutions:
>
> "Resolved, That the Office Manager of the Tennessee Valley Authority or his duly authorized representative, is hereby authorized and instructed to approve purchase requisitions issued on behalf of the Electric Home and Farm Authority, Inc.; he is to serve without compensation other than that received from the Tennessee Valley Authority.

"Resolved, That the Director of Purchases of the Tennessee Valley Authority or his duly authorized representative, is hereby authorized and instructed to perform the duties of Purchasing Agent for the Electric Home and Farm Authority, Inc.; he is to serve without compensation other than that received from the Tennessee Valley Authority." (Pl. Ex. No. 45-B; June 11, 1934)

Relating to Public Works Administration.

Plaintiffs introduced in evidence the stipulation between counsel as to the testimony of Harold L. Ickes as Plaintiffs' Exhibit No. 34. That stipulation was as follows:

"The parties to the above styled cause, acting by and through their respective solicitors of record, do hereby stipulate and agree that if his testimony had been taken in this case, Harold L. Ickes would have testified in substance as follows:

That the telegram from him to Mayor Lee Glenn, Florence, Alabama, dated July 11, 1934, was sent after a conference with David E. Lilienthal.

That prior to November 1, 1933, David E. Lilienthal conferred with the Administrator of Public Works, and that the Administrator expressed his willingness to consider in a cooperative manner applications for loans in the Tennessee Valley area for municipal electric systems where towns had entered into contracts for power with Tennessee Valley Authority.

That from time to time after January 4, 1934, consideration and action on applications for loans from Alabama towns in the area covered by that contract were affected by advice from the Tennessee Valley Authority as to the existing status of negotiations for the purchase of such properties. Within the last few weeks, at about the time of the letter of David E. Lilienthal to the Alabama municipalities, consid-

eration and action upon such application was expedited.

That counsel for Tennessee Valley Authority appeared as amici curiae with counsel for the Public Works Administration in filing the brief in the Supreme Court of Alabama in the case of Oppenheim vs. City of Florence in support of the validity of the proposed revenue bonds proposed to be issued by the City of Florence to PWA for the proposed PWA loan and grant to that town.

That the reference in the Chattanooga Times of November 19, 1934 quoting Mr. Ickes as stating that the power companies have instituted suit and are using the money of the companies 'to go into court with dummy law suits in an effort to stop the inevitable' is a correct quotation.

That the administrator of Public Works regards that part of the Tennessee Valley Authority program relating to the generation, transmission and sale of power as constituting a part of the general policy and program of the National Administration."

Supplementing the stipulation as to the testimony of Harold L. Ickes, it was agreed that counsel for the plaintiffs might read in evidence the following letter addressed to him from Henry T. Hunt, Chairman of the Electric Power Board of Review:

"As to the action taken on a protest filed by Mr. A. C. Garber, Chairman, Alabama Power Company's Preferred Stockholders Protective Committee, I read the protest as Chairman of the Electric Power Board of Review and concluded that all matters on which the protest was based had been considered by the Board. Accordingly, the protest was filed."

Plaintiffs introduced as Exhibits 24, 25, 26 and 27 copies of loan and grant agreements between the United

States and the Cities of Sheffield, Florence, Tuscumbia and Decatur. Except as to the amounts of the loans and grants involved, these contracts were identical in form and contained in substance the following provisions:

1. The purpose of the agreement was recited to be that the United States would make the loan and grant for the purpose of aiding the borrower in financing a project consisting of the construction of an electric transmission line and distribution system, and other necessary appurtenances thereto.

2. The loan was to be secured by the issue of special revenue bonds by the City, payable only out of the revenues to be derived from the operation of the system and not constituting general obligations of the municipality.

3. The Government agreed to make a grant in an amount equal to 30% of the cost of the labor and materials employed upon the project.

4. The contract set out various conditions precedent to the Government's obligation prefaced with the statement that "the Government shall be under no obligation to pay for any of the bonds or to make any grant," including the following:

(f) **Tennessee Valley Authority Contract**: If the Borrower shall not execute a valid contract, satisfactory to the Administrator, between the Borrower and the Tennessee Valley Authority, under the terms of which the Tennessee Valley Authority will supply electrical energy to the Borrower, and will permit the Borrower to charge such rates, in accord with the provisions of the Act and Ordinance authorizing the issuance of the Bonds, as may be reasonably necessary to pay the cost of operation and maintenance of the Project and the principal of and interest upon the Bonds.

5. In consideration of the grant, the City covenants

that all construction work on the project shall be done subject to the rules and regulations adopted by the Administrator of Public Works, and contain provisions as to the hours of work and wages to be paid, and limiting the purchase of materials to those produced under codes of fair competition approved under the provisions of the National Industrial Recovery Act.

The copy of the agreement between the United States and the City of Florence is set out in full in the appendix to this narrative, as Document No. 4.

The amounts of the loans and grants, respectively, to the four cities are as follows:

Sheffield, $187,000 (loan) and $43,000 (grant); Tuscumbia, $105,000 (loan) and $25,000 (grant); Florence, $336,000 (loan) and $100,000 (grant); Decatur, $268,000 (loan) and $82,000 (grant).

Introduced in evidence as representative of the method of handling the Public Works Administration loans to the municipalities, and of the attitude of PWA with reference to such loans, were various proceedings relating to the loan to the City of Decatur, as follows: Plaintiffs' Exhibit No. 28, which is set out as follows:

"Whereas, the Electric Power Board of Review and the Deputy Administrator recommend that the project of the city of Decatur, Alabama, for the construction of an electrical distribution system, including the low side of the substation and equipment, be included in the comprehensive program of public works for the reason, among others, that the Tennessee Valley Authority has acquired the necessary transmission lines to serve said distribution system and the financing of said project will aid said Authority in obtaining a market for its electrical energy:

"Resolved that said project be included in the comprehensive program and that the sum of $350,000 (of which not to exceed $100,000 shall be a grant) be allotted to finance the accomplishment thereof, subject to the execution of a contract satisfactory to the Administrator and in accord with the recommendations of the Electric Power Board of Review dated June 22, 1934, as amended by its report of July 30, 1934."

The recommendations of the Electric Power Board of Review, referred to in the above resolution, introduced as Plaintiffs' Exhibit 28-a, was as follows:

"Subject: Application for loan and grant of the City of Decatur, Alabama (Docket No. 6587) for the purpose of constructing distributing system, including low side of the substation and equipment, in the sum of $371,743.

After review of the Docket, this Board finds:

1. The Engineering Division by its supplemental report made the following conclusion and recommendation:

'It is our opinion that the proposed project is a public necessity and of social desirability; that it will afford needed employment, and that on the above assumptions it is technically and economically sound.'

The assumptions referred to are that

(a) 'The municipal plant will receive, in addition to all the municipal load, 60 percent of all other business in the first year of operation, and 80 percent at the end of the loan interval.'

This assumption, in the opinion of this Board, is far below that portion of the total business the municipality will receive, inasmuch as it will offer rates at

least 60 percent less than the present rates being charged by the Alabama Power Company by reason of the contract offered the City by the T. V. A.; and as the Alabama Power Company, the competitor, cannot reduce its rates by anything like 60 percent of its present rates by reason of its service to the City of Birmingham, and as it would be under the necessity of reducing its rates to other cities served by it in Alabama. If rates required by the T. V. A. contract are charged and the City obtains the same business the Company now has, its income will provide for maintenance and operating costs, interest, amortization and taxes, and a net income over all of $10,525. This appears by the estimate of O. M. Rau attached. This estimate makes no allowance for what may reasonably be expected in the way of an increase of current sold and of income by reason of the heavy reduction of rates. That a reduction of rates produces larger net incomes is shown, among other examples, by the experience of the City of Washington, under its contract with the Potomac Electric Company covering the years 1925 to 1934. Under this contract the Company is required to apply one half its surplus to rate reduction. The maximum rate in 1924 was 10c per KWH. Rates are now, after successive reductions, 3.9c for the first 50 KWH, 3.3c for the next 50, 2c for the next 100 and 1.5c for all over 200. In 1924 the Company earned 3.4 times its bond interest after allowing for depreciation and taxes. In 1932 with rates cut to one third it earned its interest twelve times. Earnings per share increased from $26.90 in 1924 to $68.08 in 1932. The privately owned electric company in Hartford, Connecticut has had a like experience. Hence this Board finds that the assumption of the Engineering Division on which it bases its conclusion that the project is technically and economically sound is far less favorable to the City than the facts warrant.

The same finding applies to the estimate of Mr. O.

M. Rau. This Board is of opinion that during the first year after the City begins business it will have at least 75 percent of the business measured in dollars, and an increase of not less than 10 percent in each succeeding year. Accordingly it finds that the project is technically, economically and financially sound.

The said finding of financial soundness is supported by the report of the Finance Division dated April 12, 1934. This report was based upon a report of the Engineering Division dated March 6, 1934, a prior report to that referred to above and one less favorable to the City. The Finance Division report of April 12 found that on the basis of the division of business estimated by the engineer-examiner '50 percent of sales the first year and 75 percent the twentieth year and all municipal business,' the project will earn only about 1.05 times the debt service for the first several years with a deficit for the first year. Inasmuch as the estimate of the engineer-examiner referred to has now been modified so that the estimate of division of business is altered to all the municipal load and 60 percent instead of 50 the first year, with an increase of 2 percent each year, it is obvious that the Finance Division would approve the loan on the revised basis. Furthermore, this Board is of opinion as stated above that even the revised estimate upward of the engineer-examiner is too low in view of the heavy reduction of rates proposed. As stated above this Board is of opinion that the said reduction will increase the portion of the business obtained by the City and also the net revenue.

2. This Board has further reviewed the conditions attached to the report of the Engineering Division dated March 6, 1934, as follows:

> '3a. The applicant shall furnish evidence satisfactory to the Administrator that the Alabama Power Company can be legally required to furnish service on a day to day basis until the acquisition

by the municipality of the used and usable portions of the existing distribution system.'

This condition having been reviewed by this Board is disapproved as impossible of performance; and the following condition substituted:

The applicant shall furnish evidence satisfactory to the Administrator that the Alabama Power Company can be legally required to furnish service on a day to day basis until the municipal system is ready for service.

This Board has reviewed the further condition:

'3b. And that thereafter' (the acquisition of the competitive system) 'the Power Company will be without authority to sell power within the municipal limits.'

This condition is also disapproved by the reason that it prevents any loan being made as such a showing involves a law suit and is probably impossible of performance as the Company has a franchise until October 1, 1949. If the T.V.A. fails to purchase the distribution system of the Company and the municipal system being under the necessity by its contract with T.V.A. of offering rates at least 60 percent less than existing rates, the Company, being unable to provide an equally low rate, will be unable to continue to compete and must withdraw. Hence this condition should be stricken out.

This Board has further reviewed condition 4a of the engineer-examiner:

'(a) That no depreciation charges, taxes or any other items of expense, except normal operating expenses and power and lighting extensions shall be charged against the revenues of this project.'

It approves this condition.

It has also reviewed condition 4b:

'That all municipally used electric energy shall be paid for at current selling rate schedules annually during the interval of the loan from the general fund into the account of this project.'

This Board also approves this condition.

This Board finds also that the Engineering Division omitted to recommend a grant. Its report does not show any reason for this omission.

This Board finds that the applicant is as much entitled to a grant as other applicants to which grants have been allowed.

Resolved, that this Board recommend an allotment to the applicant in the sum of $372,000, of which not to exceed thirty percent of the cost of the labor and materials employed thereon, estimated at $100,000, shall be a grant.

Henry T. Hunt,
Chairman."

The Electric Power Board of Review was created by an order of the Administrator of Public Works, introduced in evidence as Plaintiffs' Exhibit 34-g, set out herewith.

(Order No. 73.)

"Effective May 9, 1934, the 'Electric Power Board of Review' is established, membership, Henry T. Hunt, Morris L. Cooke, and Otto M. Rau.

It will be the duty of this Board to review disapprovals, and special conditions imposed, by any division of P. W. A. and to make recommendations to the Deputy Administrator with regard to applications of public bodies to finance the construction, repair, improvement or extension of electric power plant facilities.

The Technical Board of Review is instructed to refer

to said Board, Henry T. Hunt, Chairman, Room 5139, all such projects now pending before it on which it has not given notice of hearing.

The Projects Division is instructed to refer to Mr. Hunt summary report folders for such applications as have heretofore been and may hereafter be disapproved by any division or approved with any special conditions appearing on any divisional report.

The Electric Power Board of Review is directed to formulate and submit to the Administrator instructions for the guidance of the several divisions with regard to competitive situations and other controversial questions affecting this class of projects.

(Signed) Harold L. Ickes,
Administrator."

There was introduced in evidence as Plaintiffs' Exhibit 34-a copy of a telegram dated July 10, 1934 from Administrator Ickes to Honorable Lee Glenn, the Mayor of Florence, Alabama. This telegram is correctly set out in the Bill of Complaint, R., p. 60, and is not reproduced here.

There was introduced in evidence as Plaintiffs' Exhibit 35 copy of a letter from the Tennessee Valley Authority to the Mayor of Decatur, Alabama, as follows:

"Hon J. A. Nelson, Dec. 17, 1934.
Mayor,
Decatur, Alabama.

My dear Mr. Mayor:

Over three weeks ago the Tennessee Valley Authority tendered to the Alabama Power Company the sum of money agreed upon for the purchase and sale of electric distribution properties in North Alabama, including those within your community. The Company failed to convey the property. While the contract to purchase is still in effect for the time being, the Au-

thority is bound to inform you that it no longer has an assurance that the Company will convey, as disclosed in the memorandum of facts attached to this letter.

Under these circumstances and in view of the fact that your community may be substantially prejudiced by further delay, the Authority does not feel justified in requesting your city longer to defer your original plans for the acquisition of an electric distribution system, plans which you agreed to forego last August in order that the Authority might endeavor to acquire those properties for you by purchase.

The Authority has not indicated it will reject these properties if they are tendered. If there should be a change in circumstances we shall immediately inform you. In the meantime, we regard the possibility of the tender of these properties so remote as no longer to justify us in interference with your plans in the interest of avoiding the construction of additional distribution facilities.

Very truly yours,

Tennessee Valley Authority,
By David E. Lilienthal,
Director and General Counsel."

There were introduced in evidence as Plaintiffs' Exhibits 34-d, 34-e and 34-h public releases by the Public Works Administration, as follows:

Plaintiffs' Exhibit 34-d.

"To State Engineers November 8, 1933.

A number of inquiries have come in to me regarding our attitude and procedure in regard to applications for loans for municipal light plants. I have prepared the present letter to set forth my views.

It seems to me that we should do all in our power to prevent becoming embroiled in local political disputes.

I think it is going a bit too far and creates an unnecessary amount of work to notify all the utility companies when a municipal utility application comes in. Isn't it a fact that when you hear one argument you hear all of them? In principle they are the same. After all, the question for you to decide is one of whether or not it is engineeringly, economically and socially sound.

The entire procedure of the utility company is one of delay. You find this everywhere. We are most anxious to set up around the country sound publicly owned utilities as yard-sticks to determine the principle of whether or not communities can satisfy themselves and give lowered rates for electricity.

Where you do find it necessary to have a hearing, both sides, of course, should be present. I cannot see why it is necessary for the utilities to get into the whole file. If you do this you immediately get into a three-cornered engineering discussion, the utilities, the applicant and ourselves. As far as the engineering is concerned I don't think it is any of the utilities business. Your engineering force, together with the engineering which has been done by the applicant and which will be checked here, is sufficient.

If the utility desires to file a brief or be heard, and you decide it is necessary and advisable to do so, you can give them enough of the facts on which they can prepare their brief.

P.W. 1073 H. M. Waite,
Deputy Administrator."

Plaintiffs' Exhibit 34-e.

"PWA Press Section
Immediate Release Release No. 989

Achievement in certain instances of the administration purpose of making electric energy more widely available at cheaper rates today lead to a clarification

of the policy on power by the Public Works Administration.

Municipal or local publically owned power projects will be aided by PWA only when, in addition to meeting those qualifications necessary for public works projects, they assure electricity to communities at rates substantially lower than otherwise obtainable under the unchanged basic policy enunciated by Public Works Administrator Ickes.

The statement of Administrator Ickes followed action by some privately owned utilities, which, on re-examination of their condition, found it possible to reduce rates to a point below those proposed by municipal project plants.

In all allotments made for municipal power plants by the Public Works Administration proposed rates have been well below existing private company rates. Consequently, the fact that the companies in some instances have met these proposed municipal rates has been deemed as showing progress toward one of the aims of this phase of the public works program.

In the cases affected Public Works Administration policy will be so administered that municipal plant construction will not be deprived of the possibility of public works support until such time as the local Government feels assured the proposed rate reduction by the existing utility will be in effect on a reasonably permanent basis.

Since the Public Works program began financing electric plants, where they are socially desirable and where they will be self-liquidating, there have been reductions of rates by private utilities in different localities. The private utilities are becoming increasingly cognizant of the greater use of power resulting from lower rates.

Administrator Ickes said:

'PWA has endeavored to make electric energy more

broadly available at cheaper rates by acting on applications of municipalities for loans and grants to finance municipal systems where reasonable security is offered and the project is socially desirable. They are deemed desirable where the loan can be amortized in a reasonable period while charging rates substantially lower than those of the existing utility.

'However, we make it a practice before approving the loan to give the company an opportunity to put in effect rates at least as low as those at which the municipal system will be self-liquidating. Several utility companies have accepted this opportunity. It is obvious that in such cases it is advantageous to the city and to PWA that the offer be accepted and the applications withdrawn. To make loans and grants to finance projects where the competitor offers rates which are lower than those possible by the city plant, would duplicate facilities without any social betterment and impose on the city a burden which it probably could not meet without resort to taxation.

'Furthermore, in the described situation Public Works will be free to use its funds to better advantage elsewhere. The action of the utility companies referred to supports the belief that domestic rates, in certain instances at least, are so high as to be disadvantageous to the company as well as unjust to the consumers. Experience shows that lower rates may produce larger profits particularly where promotional campaigns are conducted and the cost of electrical appliances is made reasonable.

'PWA will cooperate with cities to prevent rates rising on an indication municipal plants may not be built. PWA will not rescind allotments or suggest the withdrawal of applications until the lowered rates are legally in effect.

'State laws authorize municipal competition, hence it is PWA's position that the State has determined that such competition may be socially desirable. We

believe it is for the municipal applicant to determine whether or not it desires to compete with privately owned utilities. It is our policy to consider such applications particularly where franchises are soon to expire, provided the project is self-liquidating at rates lower than those which the existing utility is willing to put into effect.' "

Plaintiffs' Exhibit 34-h.

"President's Letter Creating the National Power Policy Committee.

Establishment by the President in the Public Works Administration of a Committee called the 'National Power Policy Committee' was announced today at the White House. (July 16, 1934).

Secretary Ickes will be Chairman of this Committee, the membership of which will be composed of:

Dr. Elwood Mead, of the Bureau of Reclamation,

Honorable Frank R. McNinch, of the Federal Power Commission,

Honorable Morris L. Cooke, of the Mississippi Valley Committee, PWA,

Major General Edward M. Markham, Chief of Engineers, War Department,

Honorable Robert E. Healy, of the Federal Stock Exchange Commission,

Honorable David E. Lilienthal, of the Tennessee Valley Authority,

Honorable T. V. Norcross, Assistant Forester of the Forest Service.

In the following letter from the President to Secretary Ickes under date of July ninth the purpose and duties of this Committee are outlined:

'I wish to establish in the Public Works Administration a Committee to be called the "National Power Policy Committee." Its duty will be to develop a plan

for the closer cooperation of the several factors in our electrical power supply—both public and private—whereby national policy in power matters may be unified and electricity be made more broadly available at cheaper rates to industry, to domestic and, particularly, to agricultural consumers.

'Several agencies of the government, such as the Federal Power and Trade Commissions, have in process surveys and reports useful in this connection. The Mississippi Valley Committee of Public Works is making studies of the feasibility of power in connection with water storage, flood control and navigation projects. The War Department and Bureau of Reclamation have under construction great hydro-electric plants. Representatives of these agencies have been asked to serve on the committee. It is not to be merely a fact-finding body, but rather one for the development and unification of national power policy.

'As time goes on there undoubtedly will be legislation on the subject of holding companies and for the regulation of electric current in interstate commerce. This committee should consider what lines should be followed in shaping up this legislation. Since a number of the States have commissions having jurisdiction over intrastate power matters, it is necessary that whatever plan is developed should have regard to the powers of these various State commissions as well as of the States in general.

'It is not thought that it will be necessary to have frequent meetings of the full Committee. An adequate administrative staff will be provided, and personal expenses of the members of the Committee in connection with its meetings will be met.

'The Committee is to be ~~advisory to~~ the President. I hope that you will accept membership on this Committee and act as its Chairman.' "

There were introduced as Plaintiffs' Exhibits 34-f and

34-i the following executive orders with reference to the Federal Emergency Administrator of Public Works:

(No. 6198.)

"Pursuant to the authority of 'An Act to encourage national industrial recovery, to foster fair competition, and to provide for the construction of certain useful public works, and for other purposes', approved June 16, 1933, and in order to effectuate title II—Public Works and Construction Projects—thereof;

I hereby appoint Harold L. Ickes to exercise the office of Federal Emergency Administrator of Public Works.

Franklin D. Roosevelt.

The White House,
July 8, 1933."

(Plaintiffs' Exhibit 34-f).

(No. 6329.)

"By virtue of and pursuant to the authority vested in me by section 201 (a) of the National Industrial Recovery Act, approved June 16, 1933, 48 Stat. 195 (hereinafter referred to as the 'Act'), I hereby delegate to the Federal Emergency Administrator of Public Works the following functions and powers:

1. In his discretion, and upon such terms and conditions as he may prescribe, to sell, assign, transfer, and deliver all securities or any part thereof purchased under the authority of section 203 of the said Act and of Title II of the Emergency Appropriation Act, fiscal year 1935, approved June 19, 1934, 48 Stat. 1021, and to apply the proceeds as prescribed by section 203 of the said Act and said Emergency Appropriation Act, fiscal year 1935.

2. To alter, amend, or waive any or all rules and regulations set forth in Executive Order No. 6252 of August 19, 1933, and any other rule or regulation

promulgated by the President under the authority of section 209 of said Act, and to prescribe pursuant to the authority of the said section 209 any other rules or regulations as are necessary to carry out the purposes of said Act; Provided, however, no rule or regulation the violation of which is made punishable by fine or imprisonment under the said section 209 shall become effective until approved by me.

Franklin D. Roosevelt.

The White House,
December 26, 1934."

(Plaintiffs' Exhibit 34-i).

There was introduced in evidence (Pl. Ex. No. 47) the Executive Order of the President dated June 8, 1933, No. 6161 reading as follows:

"Executive Order

Conservation and Development of the Natural Resources of the Tennessee River Drainage Basin

In Accordance with the provisions of section 22 and section 23 of the Tennessee Valley Authority Act of 1933, the President hereby authorizes and directs the Board of Directors of the Tennessee Valley Authority to make such surveys, general plans, studies, experiments, and demonstrations as may be necessary and suitable to aid the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin, and of such adjoining territory as may be related to or materially affected by the development consequent to this act, and to promote the general welfare of the citizens of said area; within the limits of appropriations made therefor by Congress.

Franklin D. Roosevelt.

The White House,
June 8, 1933."

Excerpts from the reports and orders of the Alabama Public Service Commission, which has jurisdiction under the utility laws of Alabama over the rates and services of the Alabama Power Company in sundry proceedings heretofore pending before said Alabama Public Service Commission were introduced, the substance of the same being that the Commission was not prepared to hold that the water power resources at Muscle Shoals (then being distributed through arrangement with the War Department by Alabama Power Company) should be distributed upon the theory that such resources exist primarily for those nearby and that nearby customers should accordingly have a preference in rates over all other customers located in other parts of the state, and reciting that the Alabama Power Company rate structure "is based on uniformity to all communities served and it has observed this basis since its hydro electric system was first constructed and put into operation **(Alabama Pipe Company vs. Alabama Power Company**, September 30, 1927, Docket No. 4888; Pl. Ex. No. 50).

> "If the Commission accepted the results of cost analysis by Mobile's own witness, such results would justify a higher rate in Mobile than elsewhere. This, however, is not in accord with the Commission's policy of establishing uniform rates throughout the State, wherever conditions are approximately the same." **(Alabama Public Service Commission vs. Alabama Power Company**, November 20, 1929, Docket No. 5588; Pl. Ex. No. 51).

The following excerpt from the opinion of the Commission dated September 2, 1933 in the matter of a general investigation of rates and charges of Alabama Power Company (Pl. Ex. No. 52) was introduced:

"The Commission decided in 1928 that all rate schedules of respondent should be as nearly as practical uniform for the several classes of service. That objective has been followed in all rate revisions since that time, and, with the exception of the residential and rural schedules, uniformity has already been attained.

"Uniform rates for the system of respondent, in our opinion, have proven beneficial to respondent and the public, and the policy will be continued in these revisions by prescribing statewide rates for residential service applicable to all customers served from the interconnected system and concurrently therewith, we cancel all of the above named service classifications."

There was introduced in evidence (Pl. Ex. No. 53) a public release of the Federal Power Commission, dated December 10, 1934, by Frank R. McNinch, Chairman of the Federal Power Commission, on the subject of "The New Deal in Power." Excerpts from this release are as follows:

"May I express the deep appreciation of the Federal Power Commission of the friendly interest in and support of our work which was so freely manifested in many letters received following my earlier radio talk.

"Since the bold, constructive and epoch-making declaration of his power policy by Mr. Roosevelt at Portland, Oregon, in September, 1932, America has become aggressively power-minded. In that speech Mr. Roosevelt said: 'I state to you categorically that as a broad general rule the development of utilities should remain, with certain exceptions, a function for private initiative and private capital.' 'But,' he added, 'I favor giving the people the right to operate their own power business where and when it is essential to protect them against inefficient service or exorbitant charges. As an important part of this policy, the natural hydro electric power resources belonging to the people of the

United States or the several states shall remain forever in their possession. Never shall the Federal Government part with its sovereignty and control over its power resources while I am President of the United States.' Continuing, he said, 'The power issue, where vigorously handled in the public interest, means abundant and cheaper current for American industry, reduced rates and increased use in millions of urban and rural homes and preservation of our water power resources.'

"These declarations, with others, of a progressive national power policy have been, in part, already transformed into a definite program of action under the leadership of President Roosevelt. The effect has been that power, whether publicly or privately produced, in all its far-flung realm, pulses with a new spirit of enterprise and service and is moving forward toward the fulfillment of its social and economic functions as the universal servant of the people.

"The great development works in the Tennessee Valley, including Norris Dam, the Joe Wheeler Dam, the Pickwick Landing Dam and the Wilson Dam at Muscle Shoals; the Boulder Dam in the Southwest, the greatest concrete dam ever attempted by man, begun in 1931 and to be completed in 1935; the Grand Coulee and Bonneville dams in the Northwest and the Fort Peck Dam on the upper Missouri, which will be the world's largest earth dam; the Seminoe Dam in Wyoming and the proposed St. Lawrence River project in the Northeast are all parts of a broad, general plan that is national in scope and service. Widespread as will be the effect of these power yardsticks, they are not intended to supplant, but to supplement, the several thousand other generating plants, both public and private, and to stimulate them to provide for their sections wider distribution, better service and at lower cost.

"A year and a half ago when President Roosevelt,

with the cooperation of the Congress, launched his power program, critics declared the plan visionary, impractical and certain to fail. The wish was father to the thought. But the zealous hope for failure was doomed to disappointment and the lamentations of these Jeremiahs are no longer heard in the land.

"For the past year their fears have been not of failure but of the success of the Administration's power plans, and a nationwide barrage of propaganda has been laid down to mislead and frighten the people. But the attack not only failed but has solidified the support of this program by the people, for they knew that behind the smoke-screen of 'poor widows and orphans' stood their tearful and valiant defenders, those entrenched manipulators who have been reaping their millions where they have not sown."

* * * * * * *

"Recognizing, as I do, the great importance to our national welfare of a soundly based prosperity for the power industry, I indulge the hope that plans for obstruction may give way to measures of cooperation, that attack may be abandoned for support of the Government. But if attack is made, I am certain that there will be no retreat by the Federal forces."

* * * * * * *

"The development of a unified national power plan directed toward the protection of our natural resources from selfish exploitation and toward the achievement of maximum economies and widest social values, occupies a major place in the Roosevelt power policy. When electric power spread beyond the frontiers of state lines and became regional and national in the range of its activities, it found itself in its regional activities very largely free from the wholesome restraint of public regulation. The state oftentimes could not constitutionally act; the United States did not. Power

development under such conditions was frequently dictated by the anti-public objectives of financial manipulation rather than by the social goal of economic generation and distribution. To the jig-saw puzzle into which our national power map was transformed, the New Deal seeks to apply the unifying hand of coordination and national planning, to the end that we may have abundant, dependable and cheap sources of electricity. This includes not only water power development, but steam as well, as steam will probably be a principal means of generation as far ahead as we can see. Wise planning must be on a national scale and not merely for present needs, but for future requirements. Waterpower resources should not be treated as separate, unrelated sites, but as parts of one comprehensive system. Coal and gas are not to be considered as competitors with water power, but as essential elements in a balanced and rounded scheme of power production.

Plaintiffs' Exhibit No. 54 was a public release issued and supplied by Federal Power Commission through its Chairman, Frank R. McNinch, dated December 17, 1934, stating that a memorial filed with the President on that date by Thos. N. McCarter, President of Edison Electric Institute, had been immediately referred to Federal Power Commission.

This document is set out in the Appendix (No. 5).

The Plaintiffs here rested their case.

SECTION III.

THE DEFENDANTS' TESTIMONY.

JOHN L. NEELY, JR.

Called as a Witness on Behalf of the Defendants Testified upon **Direct Examination** as Follows:

I am Secretary of the Tennessee Valley Authority and Manager of the Muscle Shoals properties. I have been with the Tennessee Valley Authority since November, 1933. In my official capacity I have possession of the minutes of the Corporation.

On January 25, 1935, the Board of Directors rescinded its action on the contract of August 9, 1934. By this I mean that it announced that it would exercise its right not to proceed with that transaction. (At this point the witness identified a copy of the resolution of the Board of Directors of Tennessee Valley Authority which was introduced in evidence as defense Exhibit #2, a copy of which appears upon the opposite page.) The Alabama Power Company was notified of this action. (At this point the witness identified four documents as copies of notices sent to the Alabama Power Company. These were introduced in evidence as defense Exhibits 4, 5, 6, and 7.)

I have studied the historical background of the properties located at Muscle Shoals by means of public documents, reports of congressional committees, special committees, and the War Department.

At the time of the passage of the Tennessee Valley Authority Act in May, 1933, the United States Government owned certain properties in the Tennessee Valley in the vicinity of Muscle Shoals. (Here the witness identified a photograph of certain of the properties owned by the United States Government at Muscle Shoals. This photograph was introduced in evidence as defense Exhibit #8, a reproduction of which appears upon the opposite page.)